A Study of Self-directed Learning at an Ontario College of Applied Arts and Technology

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Abstract

Ontario Colleges of Applied Arts and Technology (CAATs) are currently in the process of restructuring to ensure quality, accountability, and accessibility of college education. References to learner involvement and self-directed learning are prevalent. "Alternative delivery" and "paradigm shift" are current buzzwords within the Ontario CAAT system as an environment is created supportive of change.

Instability of funding has also dictated a need for change. Therefore, a focus has become quality of learning with less demand on public resources.

This qualitative case study was conducted at an Ontario CAAT to gather descriptive, perceptual data from post-secondary community college educators who were identified as supportive of self-directed learning and from post-secondary, traditional-aged college students who were perceived by their educators to be self-directed learners. This college was selected because of initiatives to modify its academic paradigm to encourage what was reputed in the Ontario CAAT system to be self-directed learning. The purpose of this study was to investigate how post-secondary, traditional-aged college students and their educators perceive self-directed learning as part of the teaching-learning experience within a community college setting.

Educator participants of the study were selected based on the results of a teaching and learning survey intended to identify educators supportive of self-directed learning. A total of 317 surveys were distributed to every full-time educator at the sample college; 192 completed surveys were returned for a return rate of 61%. Of

these, 8% indicated instructional beliefs and values supportive of self-directed learning. A purposive sample of six educators was selected using a maximum variation sampling strategy.

A network selection sampling strategy was used to select a purposive sample of seven post-secondary students who were identified by the sample educators as self-directed learners.

The results of the study show that students and educators have similar perspectives and operating definitions of self-directed learning and all participants believe they either practice or facilitate self-directed learning. However, their perspectives and practices are not consistent with the literature which emphasizes learner autonomy or control in course structure and content.

A central characteristic of the participants represented in this study is the service-oriented professions with which each is associated. Experiential learning opportunities were highly valued for the options provided in increasing learner independence and competencies in reflective practice.

Although there were discrepancies between espoused theory and theory in practice in terms of course structure, the process of self-directed learning was being practiced and supported outside the classroom structure in clinical settings, labs and related experiences.

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CHAPTER ONE: INTRODUCTION

Due to the changing nature of the economy, technology and the labour force, there are growing demands on the college system to re-examine teaching and learning to ensure students can meet future challenges. The Ontario Colleges of Applied Arts and Technology (CAATs) are discussing and planning fundamental changes to the system. Vision 2000: Quality and Opportunity (1990), a report intended to redirect a vision for the CAAT system in the year 2000, emphasizes that continuous retraining and education are now generally recognized as necessary for all workplaces. A portion of this vision suggests that curriculum be redesigned to make delivery more flexible and learner-centered in order to meet the career/education needs of an increasingly diverse range of learners and an older student population. A future is envisioned when "the college system is an exemplar of lifelong learning in the way it provides flexible, student-driven learning opportunities for both employees and students" (A Summary, Vision 2000, 1990, p. 21).

Ontario colleges are currently in the process of "creative renewal," restructuring to ensure the quality, accountability and accessibility of a college education. Among the initiatives being introduced, Prior Learning Assessment (PLA) will ensure learners are given credit for previous learning, and the formation of the College Standards and Accreditation Council (CSAC) is intended to ensure system-wide standards and accreditation of programs, which have been largely absent in the college system (Cantor, 1992). One of CSAC's mandates (1994) is to promote the development of lifelong learning by establishing system-wide learning outcome

standards. The intention is to shift the emphasis away from content and context of learning to permit learners to be assessed according to their ability to demonstrate learning, "no matter how that learning was acquired" (p. 6). This approach, in turn, is intended to encourage a variety of delivery methods and learning strategies. Reference to learner involvement and self-directed learning (SDL) is prevalent. "Alternative delivery" and "paradigm shifts" are the current buzzwords within the Ontario CAAT system as an environment is created that is supportive of change. The fundamental focus of college activity is changing from a teaching-centred approach to learning-centred education (Association of Colleges of Applied Arts and Technology of Ontario [ACAATO], 1995a) and learning is evolving as the fundamental activity.

This qualitative study began as an investigation of the relationship between a post-secondary college student's willingness and capacity to adopt self-directed learning strategies, and the educator's theory-based knowledge, beliefs, teaching style and subsequent proficiency to guide students toward self-directed learning. However, as the study progressed, the question evolved into an investigation of post-secondary college students' and educators' perceptions of self-directed learning as part of the teaching/learning experience.

The context of the college setting and institutional constraints which may affect the extent of self-directed learning in terms of student empowerment were included in the study, but students engaged in self-directed learning were presumed to have some involvement in designing their own learning. It was also presumed that self-directed learning is feasible within a classroom environment as well as through independent

study. Also, it was presumed that traditional post-secondary college students, although a variety of ages, can be described as "adult learners" insofar as they are socially and legally independent.

Background

The concept of "andragogy," which summarizes the unique character of adult learning, was first introduced into the adult education literature by Lindeman in 1927 (Brookfield, 1987). However, Knowles (1970) popularized the term "andragogy" and the andragogical model as one which characterizes adult learning, arguing that pedagogy and andragogy are on a continuum. The pedagogical model describes the learner in a dependent role with the teacher fully responsible for making all decisions regarding learning whereas Knowles's andragogical model suggests that the educator recognize the adult learner's needs for self-direction and meet those needs through fostering independence. This model of andragogy has been influential in setting the stage for adult education in many institutions.

Brookfield (1986) and Mezirow and Associates (1990) have argued the need for the adult educator to be more actively involved rather than simply accepting learners' stated preferences and needs. They suggested instead that the educator should challenge learners, a concept of adult learning which is dissimilar to Knowles's but comparable to Lindeman's (1961) original discussion in which conflict, opposition and critical discussion were central elements of adult learning. The adult educator can also facilitate critical reflection to encourage growth and transform the adult's

perspectives (Mezirow, 1990).

It is widely argued that the goal of education is to encourage lifelong learning, which would in turn suggest the need for learners to be self-directed. Literature supports the idea that a suitable approach for adult education is self-directed learning and that self-directed learning has advantages for the learner (Brookfield, 1986; Candy, 1991; Cranton, 1992; Knowles, 1980; Mezirow, 1990). Furthermore, Knowles (1970) argued that the educator must assist the learner's self-direction by fostering independence; Brookfield (1986) and Mezirow (1990) concurred but emphasized the need for the educator to be actively involved.

Since post-secondary college students are considered to be socially and legally independent, it can also be argued that they are adult learners. Therefore, if given the opportunity and guidance, college students should be interested and able to learn the necessary strategies of self-directed learning. Brookfield (1990) supported the notion that college education is adult education, a distinction in the literature which he described as artificial. He argued that research, theory and philosophies of adult learning principles can contribute to the teaching practices in higher education. Knapper and Cropley (1991) emphasized that higher education institutions must lay the basis for lifelong learning among a major clientele of higher education, the traditional full-time student entering college or university directly from high school: "Institutions of higher education that seek to implement the principles of lifelong education will be faced with making fundamental changes in their approach to teaching and learning practice" (Knapper & Cropley, 1991, p. 66).

Problem Situation

The faculty and students of one Ontario College of Applied Arts and Technology were used in this study:

The Educator Group, a purposive sample, was drawn from an Ontario College of Applied Arts and Technology that had recently implemented a new academic paradigm reputed to facilitate self-directed learning. The sample consisted of educators from a variety of programs whose responses to a teaching/learning survey indicated that their teaching/learning philosophies are in alliance with self-directed learning strategies;

The Student Group consisted of a purposive sample of post-secondary college students from the college described in the preceding paragraph and from a variety of programs. The sample was identified by their educators as self-directed learners. Furthermore, students were assigned, as a program requirement, to engage in self-directed learning for a percentage of their timetabled hours. This sample was drawn from those whose educators were familiar with adult education and had indicated in a survey that their values and practice were in concert with self-directed learning principles.

Purpose of the Study

The original purpose of this study was to determine whether a post-secondary college student's willingness and competency to engage in self-directed learning is related to the educator's theory-based knowledge and familiarity with self-directed

learning strategies. However, in keeping with the qualitative nature of this study, as the study progressed, a new focus emerged: to determine how students and educators perceive self-directed learning as part of the teaching/learning experience within a college setting.

Information on the following variables had implications in this study and was included in the description: a) the student's program, age, grades, experience, and education; b) the learning environment, group interaction, available resources, staffing, planning and implementation of SDL concepts; c) the educator's training, teaching and related assignments, values, and assumptions; and d) the educator's age, years of teaching experience and related, professional experience.

The following questions guided the design of the study:

1) Are post-secondary college students willing to participate in learning strategies in which they perceive they are taking responsibility for their own learning?

2) Do post-secondary students consider themselves to be competent in engaging in self-directed learning?

3) Is the readiness of college learners to engage in self-directed learning situational; for example, is it related to the learner's area of study, the learner's program year, the learner's need for access to equipment in a supervised setting, the learner's opportunity for group or classroom interaction or the learner's access to one-on-one meetings with an educator/facilitator?

4) Are there differences in practice and beliefs between those who are engaged in self-directed learning voluntarily and those who have been assigned to practice self-

directed learning?

5) Do students and educators believe that career goals can be met by the process and goals of self-directed learning?

6) Do both educators and students have the same perceptions of the concept self-directed learning?

Rationale

Although considered a natural process for adults who are acquiring new skills or ideas on their own, self-directed learning is often overlooked by educators when learning takes place in an institutional setting (Merriam, 1991). In fact, Knowles (1980) argued that colleges and universities have been the slowest to respond to the expressed needs of adult learners. Although research on self-directed learning has been identified as the chief growth area of research in adult education (Brookfield, 1985; Long & Redding, 1991; Schuttenburg & Tracy, 1986), little can be found regarding the practice of self-directed learning in the post-secondary college setting.

Due to the changing nature of the economy, technology and the workforce, there is a need for the college system to prepare students, who traditionally attend college for career education, to meet the challenges which they will face in the future. "Continuous retraining and education is now generally recognized as necessary for all workplaces" (Vision 2000: Quality and Opportunity, 1990b, p. 123). In "A Summary" of Vision 2000, a future is envisioned when "the college is an exemplar of lifelong learning in the way it provides flexible, student-driven learning opportunities

for both employees and students (1990a, p. 21). To facilitate lifelong learning among their students, college educators need to explore the current theories of self-directed learning in order to facilitate their students' independence in seeking future "student-driven" learning.

"Fresh vision is needed to create new delivery systems for learning, new paradigms for financing, and new models for higher education" (Dolence & Norris, 1995, p. 7). Due to the changing economy, provincial funding of colleges is changing, a shift which has an impact on college budgets; this in turn could have an impact on the delivery of curriculum and encourage more independence on the part of the learner. Self-directed learning might address these budgetary constraints and yet maintain, indeed enhance, pedagogical/andragogical practice within the college system.

Importance of the Study

This study is of interest to college educators and administrators who are investigating flexible, educational opportunities that are affordable yet enhance a student's ability to acquire knowledge and career-based skills, skills in critical thinking and opportunities for lifelong learning. Educators may discover that, in assisting students to adapt to a different way of learning, and by participating in that learning as "partners" and "co-learners," they will also benefit in terms of their own professional development.

Assumptions

Based on the researcher's perspective as a college educator and as a graduate student studying and practicing self-directed learning principles, the following assumptions must be recognized as part of this study:

1) Lifelong learning is a goal in higher education;

2) Educational research should be relevant to practice;

3) Educational research should acknowledge the practitioner's perspective and the learner's perspective;

4) The process of self-directed learning has value as an educational approach. It is not an assumption that it has greater value than other approaches;

5) Self-directed learners see themselves as in control of their own learning and they are aware of their learning.

Definition of Terms

* post-secondary college students - students enrolled in a post-secondary college diploma program who possess the minimum of a Grade 12 diploma or the equivalent. Students may range in age from 18 years to senior citizens.

* traditional-aged college students - a major clientele of higher education between the ages of 18 and 26 years who enter college or university directly from high school.

* self-directed learning - a process and goal of learning whereby the learner is involved in planning the curriculum, setting learning objectives, choosing and

implementing learning strategies to meet these objectives, establishing evidence for evaluating the learning and evaluating learning outcomes. The learner feels "empowered" and in control, free from externally imposed direction. In an institutional setting, the educator may also be involved in this process in varying degrees.

* adult education - learning activity engaged in by adults for the purpose of changing knowledge, understanding and/or skills. This change may or may not involve a transformation of beliefs and/or values.

* adulthood - a process rather than a state of self-actualization and self-fulfillment (Darkenwald & Merriam, 1982). As a person matures, his or her self-concept moves from one of dependency toward an acceptance of societal and personal responsibility. Adult learners have a desire to learn things that they themselves perceive as worthwhile (Knapper & Cropley, 1991). Traditional-aged college students are young adults.

* learning - a process of change due to study and/or experience.

* educators - "individuals who choose to become involved in the facilitation of the learning activities of others, or may be trained teachers or individuals with formal academic qualifications in a subject" (Cranton, 1992, p. 1).

* facilitating self-directed learning - a process whereby the educator assumes a variety of roles depending on the situation; for example, the educator may be an expert, a role model, a resource person, a facilitator, a negotiating partner, a co-learner, a mentor, a researcher, a partner and/or a reflective practitioner.

* learning situation - any situation in which learners are actively involved in the learning process, whether voluntarily or by assignment. The situation might consist of a classroom setting, group situation, one-on-one meeting with another learner or educator/facilitator, an experiential situation, a study of literature or material resources, etc.

* andragogy - a concept defined by Malcolm Knowles as the art and science of helping adults learn (1970).

Outline of Subsequent Chapters

Chapter 2 contains a review of the literature pertaining to theories of self-directed learning and adult education as well as strategies for facilitating self-directed learning. Literature regarding the learning needs of college students, educational and professional development of college faculty and common instructional strategies used in the college system is explored as well. Learning styles and teaching styles are also addressed. Lastly, there is a review of the relevant research literature.

Chapter 3 presents the methodology of the study. This includes a discussion of research design, samples, data and information-collecting procedures and recording, instrumentation and method of analysis. Methodological assumptions are addressed as well as the limitations and weaknesses of the study.

Chapter 4 is a description of the results of the research. It begins with a portrait of the college and the context of the study. The participants are introduced and then the qualitative data are analyzed thematically according to sample groups.

This analysis is then synthesized in a more concise form according to recurring themes and images.

Chapter 5 discusses the interpretation of these findings. Results are discussed and related to theory and research. New questions and implications are included as well as recommendations.

CHAPTER TWO: LITERATURE REVIEW

Literature that relates to principles of adult education, principles of self-directed learning, the role of the educator who facilitates self-directed learning, and the education of adult educators will be presented. To set the scene, teaching and learning issues in higher education as well as current trends in the Ontario College system will be reviewed. Lastly, related research will be discussed.

Theoretical Background

The foundation of adult education is undeniably "humanistic" and democratic in approach in that the importance of the learner and learner participation are emphasized.

John Dewey (1916; 1938), recognized as the founder of progressive education, argued that learning is a lifelong process. "The most important attitude that can be formed is that of desire to go on learning" (Dewey, 1938, p.48). Dewey's notion of active learning encouraged links between real life experiences, especially work situations, and the conventional education system. Experiential learning is at the heart of Dewey's learning philosophy and is the underlying theory of adult education. Experience has value and educative significance if it is continuous and interactive; that is, "every experience should do something to prepare a person for later experiences of a deeper and more expansive quality" (Dewey, 1938, p. 47). Experience must also be interactive, according to Dewey, and includes external conditions as well as social conditions whereby reflective thinking is encouraged.

Dewey argued that it was the educator's responsibility to understand learners' needs and competencies and adapt learning conditions accordingly.

The theory of cooperative interaction, intended to involve students in the democratic process, is readily linked to the work of Eduard Lindeman (1926/1961), a contemporary of Dewey's and one of the founders of adult education. Humanistic psychology is also associated with adult education with its emphasis on the learner and individual learning styles and needs. Carl Rogers and Abraham Maslow are generally used as examples of those who heavily influenced elements of facilitating learner self-awareness and self-actualization. As emphasized by Long (1991), "Self-directed learning is central to the humanistic ideas about adult learners that underlie many of adult education's concerns about teaching learning transaction" (Peters, Jarvis & Associates, 1991, p. 86).

Evidence of Dewey's and Roger's influence can be seen in the literature of Lindeman (1926/1961), author of the first text on adult education, who outlined four characteristics of adult education: a) Education is a lifelong process; b) it is non-vocational; c) it should suit learners' needs; and d) learners' experiences are essential. His view that adult education is "A process through which learners become aware of significant experience" (p. 109) is one upon which both Brookfield and Mezirow have expanded.

Malcolm Knowles (1980) is recognized as one whose theories have had a great deal of influence on current practices of adult education. The term "andragogy," defined as "the art and science of helping adults learn," is attributed to him.

Knowles's theory is based on the following assumptions:

1) The adult learner has a need to be self-directing; it is argued that, to facilitate this process, the learner should engage in self-evaluation as well as the planning of the learning. Knowles indicated that being judged by another adult is the ultimate form of disrespect and dependency;

2) The adult learner's volume and diversity of experience enhance further learning;

3) Adult learners have a readiness to learn what they feel they need to know;

4) Adult learners are oriented to learning because of a need to perform a task or solve a problem;

5) The adult learner's strongest motivators for learning are internal elements such as the need for self-esteem or quality of life.

Self-directed learning is often also identified with Tough (1971) and his research on learning projects. Yet, as summarized by Peters and Jarvis (1991), Knowles seemed to be writing about learning with a teacher whereas Tough discussed the concept of self-teaching, learning without a teacher. It was Tough (1971) who called for changes in educational institutions by suggesting a move toward equality between educators and students and an increase of student choice of how and what they learn (cited in Caffarella, 1983).

Recently, Stephen Brookfield has emerged as an authority on self-directed learning (Long & Associates, 1989). Brookfield (1986) argued the need to move adult learning beyond merely meeting the expressed needs of the learners. In fact, he

argued that self-directed learning must be nurtured in order to develop as a learning style. He emphasized the need to involve critical self-reflection which necessitates a more active involvement on the part of the adult educator who should assist the learning process by challenging assumptions. Cranton (1992) mirrored Brookfield's argument and further emphasized the need for the adult educator to be grounded in theoretical bases since the field of adult education demands educators who are more than technicians. Furthermore, as part of this transactional learning, the educator is responsible for effecting change: "If you are successful in changing adults' perceptions of the world in which they live, you will not need to teach adults to acquire new skills and knowledge - they will be eager to discover these for themselves" (Brookfield, 1986, p. 248).

Theory and practice are effectively woven together in Brookfield's text, Understanding and Facilitating Adult Learners (1986). He addressed the contextual constraints facing the adult educator as well as the potential stress implicit in any learning which involves change. In recognizing the realities and constraints of facilitating adult learning in a school environment, Brookfield encouraged the practitioner to recognize small successes, that learning can happen in small measures. He emphasized the "joy in learning" (p. 89), yet warned the educator against striving for perfection as unrealistic and self-defeating (p. 199). Brookfield expanded on these insights in a practical manual intended for college teachers, The Skillful Teacher (1990).

Another proponent of critical self-reflection, Jack Mezirow (1990) also moved

the theory of adult learning beyond self-direction as described by Knowles toward emancipatory education which fosters transformative learning. He argued that, through critical self-reflection, a change takes place which alters the way the learner thinks. As part of this transformation, the learner will feel empowered to act upon these new insights, and hence become truly self-directed.

In Mezirow's model, the educator's role is an active rather than a passive one. By facilitating what he called perspective transformation, the educator enhances learners' ability for self-direction by helping them to recognize and clarify problems and options for change. However, Mezirow also recognized that throughout this process, the learner's psychological security is threatened. Since the goal of transformative learning is emancipation, the educator should assist the learner in achieving empowerment through challenge, but must also guide and support the learner toward this end. Mezirow (1991) and Brookfield (1987) agreed that the learner can experience a great deal of personal stress as a result of being involved in learning and change as the learner critically reflects upon personal assumptions.

While change is inherent in Mezirow's theory, Collard and Law (1989) criticized him for failing to develop a comprehensive theory of social change. Mezirow argued that learning is "incomplete without the learner taking action, possibly in a secure educational setting, before taking further action" (1990, p. 356). It would appear that Mezirow's goal as an educator would be to only facilitate change, not specify what that change should be. A definition of learning from Combs, Avila and Purky (1971) effectively described the problem of learning as the

discovery of meaning: "The problem...involves two aspects: one is the acquisition of new knowledge or experience, the other has to do with the individual's personal discovery of the meaning of the information for him" (as cited in Whaples & Rivera, 1982, p. 125).

Philip Candy (1991) examined the concept of self-direction as the goal of adult education and he argued that although it has been widely regarded as the major element of adult learning, it is a concept that carries a wide range of connotations. The first distinction he made was that self-direction is both a goal and a process and that it embraces four distinct phenomena: personal autonomy, self-direction as a personal attribute of self-determination; self-management, the willingness and ability to manage personal learning endeavors; learner control, self-direction as a way of organizing instruction; and autodidaxy, learning independently without formal institutional structures. He also clearly demonstrated the process and goal of self-directed learning as being part of a never-ending continuum within adult learning and emphasized four constraints on a person's ability to be self-directing: the nature of the learning situation; the nature of knowledge; the learner's social context; and the learner's view of the situation.

The literature on the development of adult learning theory demonstrates clearly the influence that Knowles's theories continue to have in the area of adult education. It also demonstrates the important position that the concept of self-directed learning continues to hold, although confusion exists in the understanding of the concept.

Self-directed Learning and the Role of the Educator

The term that most often applies to any learning situation to which the learner takes the initiative and primary responsibility for the learning process is self-directed learning. Considered to be a natural process for adults when acquiring new ideas or skills on their own, it is often overlooked by educators or given little importance when learning takes place in an institutional setting (Merriam, 1991). Perhaps, as pointed out by Brundage and Mackeracher (1980), this is because the term most frequently used when referring to adult teaching and learning is "training," a teacher-directed concept denoting the teacher as "expert." Candy argued that the development of self-directed individuals is the goal of education and not the "exclusive perogative of adult education" (Candy, 1991, p. 19). He contended that development of self-directed learning competence and confidence is a lifelong process: "The socializing influences of early educational experience are so strong that by adulthood, it may be too late for many [to develop self-directed learning capabilities]" (Candy, 1991, p. 417).

Knowles (1980) agreed that there are situations in which the learner recognizes the need for teacher-directed learning, but he emphasized that this need not indicate a loss of self-directedness; rather, the learner has chosen to incorporate this as a resource and strategy for learning. In his collection of examples of andragogical models (1980), he argued the necessity of treating adult learners as just that, rather than as children who need constant direction. A variety of successful models of programs in colleges and universities are presented in which dependent young adult

learners have been transformed into self-directing adult learners via a sequence of learning activities designed to facilitate such a transformation. Knowles stressed that what is needed is a collaborative effort among learners, teachers and resource people. This was echoed in Brundage and Mackeracher's summary (1980) of three basic modes of teaching--directing, facilitating and collaborating--in which each mode is considered part of a continuum. Knowles (1980) commented, however, that colleges and universities have been the slowest of North America's social institutions to respond to the needs of adult learners.

Merriam (1991) emphasized that self-directed learning requires assistance, that it does not mean learning in isolation. She summarized three types of assistance that educators can offer: "assisting learners with individual projects as content or learning experts; incorporating ways for learners to be more self-directed as part of the formal instructional process; and fostering formal institutional and government policies that...encourage practices that could better assist people to learn on their own" (p. 53).

Merriam (1991) argued that the roles of the educator and learner are intertwined with the goals of the learning activity. The educator will take on a directive role if the goal is the transmission of knowledge whereas a facilitative role is required if the goal is learner autonomy. Brookfield (1986) challenged the merely facilitative role as one that does not encourage critical thinking, a role he argued is vital. While learners' expressed needs must be taken into account in program design, Brookfield contended that, if educators merely respond to felt needs, educators

become "mere providers of consumer goods" (1986, p. 222). This argument does not negate the commitment to collaborative modes of democratic development but rather acknowledges effective facilitation as encouraging the learner to consider divergent perspectives.

In her summary of the variety of roles assumed by the educator, Cranton (1992) emphasized the need for the educator to be aware of instructional roles and their applicability to a variety of learning situations. In her review of educator roles, she organized them on a continuum from educator directed, through learner directed, to mutually directed. The effective educator was described in this summary as one who is flexible and can respond to the needs of the learning situation by adopting appropriate roles. Knapper and Cropley (1991) corroborated this stance and emphasized the key role that educators may have to play to help students "*unlearn* previous study habits and attitudes to education" (p. 194).

In his argument of the need for educators to develop a code of democratic collaboration, Brookfield (1986) exemplified the organizational contradictions facing the educators in today's colleges and universities who are encouraged to develop curricula that will attract large numbers of learners for the sole purpose of increasing revenues. He recognized the temptations inherent in institutional constraints which demand standardized curricula and authoritarian attitudes, but emphasized the need to encourage learners to become empowered through assuming more control over their own learning.

Related Research

Self-directed learning has as its roots an early qualitative study by Houle (1961) of 22 adult learners; he was looking for patterns regarding continuing learning among professionals such as teachers, nurses and social workers (Merriam, cited in Peters & Jarvis, 1991). Houle's study characterized adult learners as goal oriented, activity oriented or learning oriented. Houle's study, in turn, inspired Tough (1971) in his investigation of independent learning projects which led to a line of research on self-directed learning (Merriam, cited in Peters & Jarvis, 1991).

It should be noted, at the outset, that Candy (1991) and Cranton (1992) found that there is little empirical research related to the area of self-directedness and that the research that exists contains some basic defects. Merriam (1991) argued that the findings were "confusing and contradictory" (Peters, Jarvis & Associates, 1991, p. 216) and Long (1988) held that self-directed learning, despite its popularity, is not well-defined and is inadequately studied.

Furthermore, in their discussion of lifelong learning, Knapper and Cropley (1991) noted the lack of adequate research evaluating the effectiveness of instructional approaches intended to foster lifelong learning and self-directedness. However, they also emphasized that there is evidence demonstrating the limitations of traditional practice.

Self-directed learning is identified as the chief growth area of research on adult education (Schuttenberg & Tracy, 1986; Brookfield, 1985). However, Brookfleld (1986) concurred with the above criticism of this research that the majority of studies

have been conducted with samples of educationally advantaged, white, middle-class Americans. Furthermore, in his summary of research into self-directed learning, Brookfield noted that the research consisted mostly of structured interviews, questionnaires, prompt sheets, and measurement scales devised by Tough (1971) and pointed out the essential weaknesses of such methodology:

1. Such instruments become self-defining;

2. Formalized measures of SDL intimidate learners who are unaccustomed to this structure;

3. Subjects' perceptions must fit the precoded categories;

4. Quantitative measurement is unable to investigate the quality of learning.

Joblin (1988) agreed with the above criticism of Tough's work but argued that at least such studies have challenged the myth that adults are not active in furthering their own education.

In an analysis of self-directed learning research, Caffarella and O'Donnell (1986) indicated that there is little research regarding how adults plan learning, and how and where they gain competencies in self-directed learning (as cited in Landers, 1986). However, a study by Spear and Mocker (1984) discovered that, although there was little evidence of preplanning, there was evidence of order and deliberateness in the learning effort (Cafarrella & O'Donnell, cited in Landers, 1986).

Although very little research has been conducted which links higher education and adult education (Cranton, 1992; Lam, 1985), a recent qualitative study of the process of moving toward self-directed learning in a graduate level course is

noteworthy. Taylor (1986) identified, from the learner's perspective, four different phases and related transition points confirming a common pattern in the experience of learning self-direction. Of particular interest was the finding that "all learners were challenged to make a major reorientation in their assumptions and expectations about learning and teaching" (Taylor, 1986, p. 59). In this study, the process of moving toward self-direction was seen to be more complex than merely acquiring skills and procedures. This finding would corroborate the theory that educators who encourage self-directed learning must be prepared to assume a more active role than Knowles suggested. However, Knapper and Cropley (1991) contended that, until institutions of higher education "overtly embrace the goal of promoting lifelong learning skills" (p. 177), systematic evaluations of study skills programs and faculty development aimed at promoting self-directed learning will be lacking.

Kasworm (1988) qualitatively studied the presence of self-directed learners in an institutional setting of higher education and the characteristics of these learners and their projects. The sample consisted of credit-seeking adult students. Common characteristics of this sample group were that they were academic achievers and that they strongly identified with self-directed learning. Of significance, Kasworm concluded that "self-directed learners do use...an institutional context to pursue their learning goals" (Kasworm, 1988, p. 94).

Lam (1985) investigated the discrepancies between actual and ideal andragogical learning experiences at both the university and college level. He confirmed that the more mature students prefer a higher degree of involvement in

planning, organizing, and evaluating their learning sessions. Furthermore, he found that those adults registered in basic education programs, who also have less background education, are not inclined to be concerned with andragogical principles. These findings have been corroborated in other studies (Cross, 1981; Darkenwald & Merriam, 1982; Hayes & Darkenwald, 1990).

Although research on self-directed learning has been identified as a chief growth area in adult education research, little can be found regarding practice of self-directed learning in the college post-secondary setting. Research has shown, however, that a group of adults of the same gender and age, and from similar social, educational, and economic backgrounds, cannot be presumed to share common learning styles (Cawley et al., 1976; Even, 1978; McKenney and Keen, 1974; all as cited in Brundage & Mackeracher, 1980).

In addressing those dimensions of self-directed learning that have been neglected in research, Candy (1991) presented several recommendations; among them are three which support this study:

1) Researchers could direct their inquiries toward exploring with learners how they perceive assistance and what criteria they use to distinguish direction from assistance;

2) Researchers should explore with learners how some resources are seen as more helpful than others;

3) Researchers should study how educators perceive learner autonomy and explore their commitment to personal autonomy as an educational goal. (pp. 447-450)

Trends in Ontario's College System

The Colleges of Applied Arts and Technology were established in Ontario in the mid 1960s. It is a large, centralized system governed by the Ministry of Education and Training. Currently there are 25 colleges, each governed by a Board of Governors. The college system was created as an alternative to university and has maintained a separate identity.

To meet what has become evident as a growing demand for opportunities in career education, in 1988 the minister of colleges and universities requested the Council of Regents to begin a review and develop a vision of Ontario's college system for the year 2000. A process of research and consultation across the province of Ontario followed in which over 2000 stakeholders from education, labour, industry and government participated (Dennison, 1995). The result was a comprehensive report entitled Vision 2000: Quality and Opportunity (1990b) which proposed a renewed mandate for the future development of the college system. The report made a total of 40 recommendations which conclude that colleges should be more accessible, more needs-driven, more flexible and open to change, and more community focussed.

To improve accessibility for a diverse range of learners, the report recommended that delivery of programming be more flexible and learner centred. In fact, it is Recommendation 1 that stated, "Education should...foster personal initiative...enhance students' choices and opportunities (and)...create a dynamic, learner-driven system" (1990, p. 169). Therefore, it can be understood that there will

be support for the notion that students should have involvement in the planning of their own learning.

Of particular interest to this study were two other recommendations which represent a new direction for the 25-year-old college system: an Instructional Development Task Force to provide leadership in the development of learner-centred curriculum and alternative delivery, and a significant increase to generic skills and general education content (1990, pp. 170-174). Both of these recommendations call for a major reorientation of the system. An emphasis is placed on education as developmental, one that sets the stage for life-long learning.

Two discussion papers serve as evidence of the impact of Vision 2000 as many of the recommendations are being enacted. These papers represented the work of two advisory committees that were set up to advise the Minister of Colleges and Universities (since changed to the Minister of Education and Training) on the implementation and development of a College Standards and Accreditation Council (CSAC) (1992) and a system for prior learning assessment (PLA) (1992). Final government approval for the creation of CSAC was made in 1993.

In the CSAC Discussion Paper (1992), a definition of generic skills includes critical thinking and problem solving, both of which enhance the adaptability and flexibility of the learner. The CSAC Establishment Board is in agreement with the change in orientation to increase general education and in so doing articulates three goals which would be served by this change. Among these goals, the following was noted: an ability for the college graduate to formulate and to achieve personal goals,

and learner assistance in pursuing options for lifelong learning. However, the board also stated that, to be effective, general education requires a commitment from a college and its faculty and that such commitment would be more likely if decisions regarding general education offerings were left to the college. Although not included in this recommendation, I would suggest that students are also more likely to feel committed toward general education offerings if involved in these decisions.

Benefits to CSAC's proposals regarding general education include offering students choices in how their general education requirements are met and delivering new courses in new and imaginative ways. Both of these benefits indicate a responsiveness to learners' stated needs which is in keeping with the literature on adult education.

In the PLA discussion paper entitled Prior Learning Assessment: Enhancing The Access of Adult Learners to Ontario's Colleges (1992), recognition was given to learning that takes place outside the school setting: for example, work and community experience as well as self-directed study. Again, in keeping with the theories of adult education, this paper indicated a respect for the skills, knowledge and experiences of the adult learner.

Recognizing the needs of adult students prompted this advisory board to propose learning contracts that students would be involved in creating. These contracts could indicate which knowledge or skills are important to the learner and how the learner wishes to pursue personal goals of learning. Furthermore, it suggested that individualized or self-directed programs may also be appropriate.

Although this paper recognized the need to train those who would be involved in Prior Learning Assessment, it failed to address the need to train those faculty who would be involved in facilitating learners' education through new delivery methods.

Recently, the College of Presidents of Ontario's CAATs distributed a paper, Learning-Centred Education in Ontario's Colleges (ACAATO, 1995a), which takes the position that "Ontario's colleges *must* change and *should* change" (p.1). The recommendations of this paper, to reexamine and redesign the college system's educational process around learning-centred education, have become the core of the Presidents' Priorities for 1996 (ACAATO, 1995b): "[Past] success has been based largely on teacher-led and teacher-delivered education....the challenge in the next generation of education and training is to provide learners with the tools to participate in and direct their own learning" (ACAATO, 1995a, p. 3).

In summary, Vision 2000 has proven to have significant impact on current trends in the Ontario College system and in particular, addressed the needs as they are perceived by adult learners and recognized the potential for more flexible programming. Reference to learner involvement and self-directed learning was prevalent in the discussion papers and is creating much activity within individual colleges. Colleges across the system have a network of committees which are discussing and responding to the report's recommendations.

It was the intent of this study to investigate the relationship between a post-secondary college student's willingness and capacity to adopt self-directed learning strategies, and the educator's theory-based knowledge, values, teaching style

and subsequent proficiency to facilitate self-directed learning. However, as the study progressed, the focus that emerged was an investigation of the perceptions held by students and educators who believed they were facilitating or practicing self-directed learning within the structure of a college.

CHAPTER THREE: METHODOLOGY

This chapter presents a description of the research paradigm, the research design, sample selection and procedures. Instrumentation and data collection procedures as well as analysis methods will be described. The chapter will conclude with a discussion of weaknesses and limitations.

The original question guiding this study was to determine whether the educator's theory-based knowledge is perceived to directly influence the willingness and competency of a post-secondary college student to engage in self-directed learning. To facilitate lifelong learning, literature regarding adult education indicated that students must be provided with opportunities to be involved in the planning of their own learning. However, the traditional role of a student in an institutional setting is one of dependence and passivity in which the educator plans and directs the learning. It is my assumption that the educator in a post-secondary institution is responsible for fostering change in the teaching/learning process through facilitating and nurturing the process of learner-directed program planning. Adult education literature suggests that adults are capable of participating in their own learning, yet studies indicate many do not know how (Merriam, 1988). The paradox inherent in this concept as well as my own experiences as a college educator and as a graduate student of adult education guided the design of this study; I was interested in exploring whether or not the educator's theoretical background influences a learner to be more self-directed. However, in keeping with the design of this qualitative study, as the study progressed, a new question emerged: How do students and educators

perceive self-directed learning as part of the teaching/learning experience within a college setting?

Research Approach Overview

A qualitative case study approach was used to gather descriptive, perceptual data from post-secondary college educators whose educational philosophies were in concert with self-directed learning and from post-secondary college students who were perceived by their educators to be self-directed. The sample was drawn from an Ontario college which has easy access to three universities nearby that offer courses of study in education. A combination of instruments from which to gather data--survey, in depth interviews, documents, field notes--provided thick description and an analysis of common themes. Given the nature of the constructivist, interpretive paradigm (Denzin, 1994; Eisner, 1991; Patton, 1990; Schumacher & McMillan, 1993) used for the design of this case study, the question was expected to be an emergent one.

The qualitative case study design offered an opportunity for holistic description and analysis of the process of self-directed learning within the post-secondary college setting as perceived by the participants. The use of multiple instrumentation and a variety of perspectives strengthened the design through triangulation and addressed the issue of internal validity, or, in keeping with the naturalistic paradigm, trustworthiness (Lincoln & Guba, 1985; Patton, 1990).

Member checks further added to the trustworthiness of the study. As Coles

and Grant (cited in Hammond, 1989) emphasized, the "single most important criterion [to establish validity of qualitative findings] must be whether those who have been the subject of the investigation feel that what is reported reflects the educational reality that they themselves experienced" (p. 114).

The Qualitative Case Study Paradigm

To best address the original question of this study and to gain an in depth understanding of its meaning from those involved, the qualitative research paradigm, and more specifically the qualitative case study research approach, was the most appropriate methodology. Merriam (1988) argued that many of the most significant contributions to the knowledge base of adult education have been made using qualitative research strategies. In particular, in a summary of these contributions, research regarding self-directed learning was shown to be "rooted in a qualitative research study" (Merriam, 1991, p. 163). With reference to the unique features inherent in self-directed learning, Candy (1991) also argued for an interpretive approach in researching questions concerned with self-directed learning: "What seems called for is a research orientation that emphasizes individuality, that acknowledges situational variability, that takes account of the apparently random...nature of human affairs, and that above all gives due prominence to the fact that people are active choosers" (p. 437). The underlying purpose of the naturalistic approach to research is to gain insights in order to better comprehend the phenomenon under study. The importance of such an approach lies in its focus on understanding and insights from

the perspective of those being studied rather than "as the researcher imagines it to be" (Filstead, 1970, cited in Patton, 1990, p. 58).

Literature regarding qualitative research methodology generally indicates that context and human behaviour are inextricably bound together and cannot be understood without knowing the meaning for the participants (Lincoln & Guba, 1985; Merriam, 1988; Patton, 1990; Spear, 1988, cited in Long & Associates, 1988). Candy (1991) echoed the importance of considering perspectives in the issue of self-directed learning in a formal, institutional setting since the perspective of the educator/facilitator and that of the learner provide frames of reference "that [are] almost totally absent from research and writing about self-direction" (p. 438).

Yin (1989) distinguished the case study strategy from other strategies as an empirical inquiry which adheres to the following principles: Boundaries between phenomenon and context are not clear; multiple sources of evidence are used, and a contemporary phenomenon is investigated within its real-life context. Candy (1991) contended that research on issues related to personal autonomy has been weak because there has been a failure to recognize "the context-bound nature of autonomy" (p. 412). In this qualitative case study, it was possible to concentrate on "a case," or a phenomenon, in order to discover the interaction of significant factors rather than test an hypothesis.

Merriam (1988) summarized definitions and conceptualizations of the case study as a process and suggested four essential properties of a qualitative case study:

1) the study of a particular situation, event, program, or phenomenon;

2) a "thick description" of the phenomenon, including as many variables as possible;

3) the discovery of new meaning and understanding of the phenomenon under study; and

4) a reliance on inductive reasoning; although a researcher might have a working hypothesis, it is subject to reformulation as concepts "emerge" from an analysis of the data.

A common argument against the use of qualitative research design is the issue of external validity; namely, the lack of generalizability. In the traditional positivist research paradigm, the construction of a generalization is left in the hands of the researcher whereas, in naturalistic inquiry, it is left up to the reader to make generalizations. Eisner (1991) argued that, as humans, we learn from the experiences of others; this is a human ability, he contended, that allows us to learn from stories rather than only first-hand experiences. Furthermore, Candy (1991) agreed that, "What we learn from an inquiry will be used in other settings or [can] be applied to them" (p. 204). Therefore, although each instance is unique, it is part of a case or process representing the general phenomena under study (Denzin & Lincoln, 1994). Stake (1978, cited in Merriam, 1988) corroborated this notion and expanded on the idea of reader interpretation: "Readers bring to a case study their own experience and understanding, which lead to generalizations when new data for the case are added to old data" (p. 15).

This study was focussed on the phenomenon of a particular teaching and

learning process within a post-secondary college system, and was mainly concerned with interpreting that phenomenon within a bounded context using a variety of instruments primarily associated with qualitative inquiry. It sits firmly within the framework of case study research as it is described in the literature.

The Researcher

The researcher enters the research process from inside an interpretive community and with a point of view (Denzin & Lincoln, 1994). For this case study, there was a recognition of kinship, or participator consciousness (Heshusius, 1994). Educator participants were relaxed and comfortable and related to me like a colleague because I, too, am an educator in the college sector and have been practicing for 10 years. Student participants likewise appeared comfortable during their interviews, and they could identify with my role as a student in graduate studies.

As a practitioner in the college sector, I teach English within a variety of programs and, as a result, have become familiar with programs similar to the disciplines in which the study sample were involved. For example, I have taught students in the health sciences, dental hygeine, social work and human relations and am acquainted with many of the frames of reference.

A background in theatre has given me practice in observation and character study, and experience as an artistic director and manager has provided opportunities to conduct interviews. While these experiences have strengthened the study and enhanced the awareness of kinship (Heshusius, 1994), they must also be recognized as

limiting because of assumptions and biases.

Sample Selection

The study sample was selected from post-secondary, full-time faculty and students in one Ontario College of Applied Arts and Technology. This college was selected because of initiatives taken to modify its academic paradigm. Of importance was the recognition that program delivery focused on educator/student contact hours, a method of delivery that was no longer affordable; therefore, a strategy was developed that was believed to make more effective and efficient use of student and staff time. As part of these changes, curriculum and program delivery were reviewed to ensure that employers' requirements--knowledge, skills and attitudes--were identified.

As of 1992-93, all students are now required to be engaged in self-directed learning for a percentage of their timetabled studies: Year 1 students for 12 percent, Year 2 students for 20 percent and Year 3 for 28 percent. The result was a reduction in educator/student contact hours. In place of scheduled class time, it was expected that students would engage in scheduled, unsupervised learning, supervised learning activities, and/or supervised learning with paraprofessional support.

The focus of the research was on a purposive sample of the above population who indicated that they subscribe to the philosophy of self-directed learning and/or that they encourage, facilitate or practice self-directed learning strategies.

The purposive sample totalled 13, six educators and seven students.

Study Sample 1 - Educators

A purposive sample of six post-secondary faculty was selected based on the results of a survey designed to measure whether or not the respondent supports learner-directed program planning, and specifically, self-directed learning as an approach to the educational process. Altogether, 317 full-time faculty were asked to complete the survey which also requested information regarding educational background.

A maximum variation sampling strategy (Patton, 1990) was used to select a purposive sample of six which represented faculty from two of the college's campuses and from five different program areas. Also known as criterion-based sampling (Goetz & LeCompte, 1984), this strategy was useful since it could be used to identify the sample in the early stages of the study. Of the six educators selected, all indicated that they were supportive of and were facilitating self-directed learning among their students and that they possesed some prior theory-based knowledge of adult education principles.

Study Sample 2 - Students

A network selection sampling strategy (Merriam, 1988) was used to select a purposive sample of 12 post-secondary students who were invited to participate in the study. Each of the students was selected based on recommendations of those faculty who participated in the study and were asked to identify two post-secondary students within their programs and of traditional age whose learning strategies were most

closely aligned with self-directed learning. A total of 12 students was invited to participate to ensure a minimum of six student participants. From the list of names generated, seven students participated in the study.

Instrumentation

Teaching and Learning Survey

The survey that was used was an adaptation of two questionnaires designed and used by Susan Wilcox (1990), Instructional Orientation Survey and Instructional Practice Survey. The development of these surveys was based on a working model of a learner-directed approach to education within a group setting which included four main categories:

Structure - defined as a flexible, emergent plan which responds to learners' needs. Learners have options and control over elements such as course objectives, content, learning methods, materials, pace and evaluation;

Climate - defined as a supportive and collaborative learning environment;

Learner Engagement - characterized by active learner involvement;

Learner Competencies - interpretated as learner awareness of the learning process. The learner is capable of self-reflection and enhancement of learning skills and strategies (Wilcox, 1990).

A fifth category was also included which indicated an approach to education that was opposed to student-directed learning. Validity and reliability of the

instruments were judged to be satisfactory. Wilcox (1990) reported that coefficients of reliability were good for the Structure category (.90) and for the Not Self-Directed category (.81) and all other categories were acceptable (> .56).

This working model was based on the adult education literature and describes the ideal conditions present in a self-directed learning experience. Furthermore, the conditions in the Structure category are considered the most essential aspects of a self-directed experience wheareas the conditions in the other three categories are considered facilitative (Boud, 1981; Wilcox, 1990).

Another instrument was considered, Principles of Adult Learning Scale (Conti, 1983), but because it was designed as a self-reporting instrument and because the construction of the questions was complicated, it was considered unsuitable. The language used in the Wilcox surveys was straightforward and thus was more likely to ensure a higher response rate.

Since the language and the categories of the original instrument remained the same in the adaptation, a pilot test of the instrument, Teaching and Learning Survey, was not necessary.

Twenty-nine statements related to attitudes and practices were clustered under the following headings: Structure, Objectives, Course Content, Learner Characteristics, and Evaluation. Included among these statements were six statements which indicated a lack of support for student-directed learning. A four-point Likert scale was used for all items (see Appendix A).

A factor analysis of the items was conducted using Principal-Components

Analysis with varimax rotation. A total of eight factors were extracted (eigenvalues > 1.0) accounting for 65.8 percent of the variance. However, factors five to eight, with eigenvalues ranging from 1.3 to 1.0, accounted for only 15.8 percent of the variance. Factors one to four together accounted for 50.1 percent of the total variance (see Appendix B). Only factor loadings above .30 are reported.

Four factors were dropped from further consideration at this point because they had fewer than three items or overlapped with other factors. Items loading higher than .30 were then examined. The rotated factor matrix is summarized in Appendix C. Factor One, with an eigenvalue of 7.98, accounted for 27.5 percent of the variance and contained 15 items; the loadings ranged from .31 to .75. Factor Two, with an eigenvalue of 3.06, accounted for 10.6 percent of the variance and contained seven items; the loadings ranged from .37 to .85. Nine items loaded on Factor Three and accounted for 6.9 percent of the variance; the loadings ranged from .31 to .79. Six items loaded on Factor Four and accounted for 5 percent of the variance; the loadings ranged from .35 to .72. Five items (A8, B2, D4, D5, E2) did not load on any of these four factors.

The factors suggested by this analysis confirmed the four main categories in the Teaching/Learning Survey with some overlap in three categories for Evaluation (Structure, Objectives, Learner Characteristics) and in Structure and Course Content indicating that factors are interrelated.

The factors extracted were categorized according to the following:

Factor 1 - Course Structure

Factor 2 - Student Input

Factor 3 - Individual Difference

Factor 4 - Educator Control

The survey was adapted and designed to be concise, attractive, and easy to complete. Permission was granted to adapt the original instruments.

Pearson Correlation coefficients among items within each category were calculated. Based on inter-item correlations as well as the responses of the faculty with adult education backgrounds, 11 items were selected as indicators of support for self-directed learning (see Appendices D and M).

Seven demographic questions were included in the survey to provide a profile of the respondents and to identify those who teach in a traditional post-secondary setting. In the Ontario CAAT system, educators are classified according to two main categories, post-secondary programs which are traditional diploma programs, and non post-secondary programs which include adult training programs, apprenticeship programs, and continuing education programs; therefore, respondents were asked to identify the discipline and program in which they taught. As part of this profile, respondents were asked to indicate formal and non-formal studies of education generally and of adult education specifically.

The survey was mailed to 317 full-time faculty in November, 1992 and a follow-up letter of reminder was mailed out in January, 1993.

Student Orientation Instruments

To raise the student sample's awareness of individual learning styles, and specifically to increase awareness of personal learning styles, two instruments were used as the basis of a workshop rather than as part of the study: Self-Directed Learning Readiness Scale (SDLRS) designed by Guglielmino (1977) and Learning Style Inventory (LSI) developed by Kolb (1976). Both instruments are self-scoring, so the results could be tabulated by the participants and be used for discussion at the first meeting. Kolb (1984) designed his instrument so that it could be used as a means of discussion of the learning process. Dixon (1985) corroborated the importance of this notion and stressed that if learning style instruments are administered and scored without discussion, students lose the opportunity to become aware of the diversity of learning styles. In fact, in his discussion of the original inventory, Kolb (1976) suggested that the subject be encouraged to evaluate the results in terms of the fit. The results also provided the students with material for reflection in their journals which they were asked to keep as part of the study.

The purpose of presenting two different instruments on learning styles was to raise an awareness among the students that learning preferences may vary, not only among a number of students but also within an individual. "An individual's learning style is in fact not one style but many" (Dixon, 1985, p. 16). It was also important that the students understand that the scores do not evaluate learning style by reflecting some students as "poor" learners and others as "better" learners but rather, the scores describe each learner as "different" (Tennant, 1991). Furthermore, since students are

not in the business of education, most do not reflect on concepts such as "learning styles." The administration of these two instruments was intended to act as a catalyst for such reflection.

Self-directed learning readiness scale. The SDLRS is a self-administered questionnaire with Likert-type items. The instructions to the respondent state that the questionnaire gathers information on learning preferences and attitudes; to avoid response bias, no mention is made of self-directed learning. However, Guglielmino describes the scale as "a measure of an individual's current level of readiness to engage in self-directed learning" (Guglielmino, 1989, p. 236).

Many studies have supported the validity of the SDLRS (Long, 1989; Long & Agyekum, 1983; Oddi, 1987). Although Field (1989) challenged the validity of the scale, he did state that the SDLRS has become a "widely accepted means of quantifying an individual's readiness for self-directed learning" (p. 125).

The resulting score of the SDLRS is intended to measure the respondent's level of self-directed learning readiness, ranging from low to high. Factor analysis of the instrument indicated eight factors in self-direction: openness to learning opportunities, self-concept as an effective learner, initiative and independence in learning, informed acceptance of responsibility for one's own learning, love of learning, creativity, future orientation, and the ability to use basic study skills and problem-solving skills (Guglielmino, 1977, p. 6467-A).

Learning style inventory. Kolb (1976) designed a nine-item self-scoring instrument in which the respondent ranks words that best describe his or her preferred

learning style. Each of the words corresponds to a four-stage cycle of learning: concrete experience, reflective observation, abstract conceptualization and active experimentation. The stages are then combined and charted on a matrix of four learning style quadrants which indicate the extent to which the respondent prefers abstractness over concreteness and action over reflection (Kolb, 1984). The four learning style clusters are as follows:

1) convergers - those who prefer abstract conceptualization and active experimentation; these individuals tend to be unemotional and prefer to work with things rather than people;

2) divergers - individuals who use concrete experience and reflective observation; they enjoy working with people and generating ideas;

3) assimilators - learners whose preferences include abstract conceptualization and reflective observation; they are more interested in theory than application;

4) accomodators - those who are best at concrete experience and active experimentation; these learners will take risks and enjoy new experiences.

Research (Kolb, 1984; Svinicki & Dixon, 1985) finds that learning styles are related to individuals' professions or fields of study. Reliability studies have shown the instrument to be stable (Cranton, 1992); however, because the instrument is still considered to be new, it requires more reliability and validity studies (Bonham, 1988). Although Pigg, Busch and Lacy (as cited in Long, 1983) found some weaknesses in the learning model, they did identify all four learning styles and also they corroborated the notion that the LSI is useful in helping learners become more

aware of learning styles.

Data Collection Methods

To enhance validity and reliability of this case study, a case study data base and a record of research procedures (see Appendix E) was maintained (Yin, 1989). The data are secure and retrievable so that other researchers may review them. To ensure participant anonymity, codes were used in the data and the master list of names has been filed separately.

Survey

The survey was used to select a sample of educators whose responses indicated that they practice and encourage self-directed learning and that they have a theory-based knowledge of adult education principles. The survey was mailed to 317 full-time faculty in November 1992 and a follow-up letter of reminder with another copy of the survey was mailed out in mid-January 1993 to those who did not respond to the first mailing. Responses totalled 192 for a return rate of 61%. Of these, 13 were spoiled ($\underline{N}$ = 179). The total number of post-secondary educators numbered 143, or 79% of the sample surveyed.

Data were analyzed using SPSS.PC and factor analysis was used to reduce the variables to main factors; subsequent factor scores were used to select a sample of six post-secondary faculty.

Interview

An in depth, semi-structured, conversational interview was conducted face-to-face with each member of Study Samples 1 and 2 using a different interview guide for each sample (see Appendix F). The interview guide consisted of an outline of issues to be explored in each interview and essentially served as a checklist to ensure relevant topics were covered. This approach was chosen over a structured interview so that the interview could evolve more naturally, in a conversational manner, and allow room for flexibility to explore or probe. The advantage of the interview guide is that perspectives can emerge or topics can be pursued that might not have been anticipated. It is in keeping with the nature of the qualitative case study approach in that it assumes that each participant has a unique perspective of the world (Merriam, 1988; Yin, 1989). "The outline increases the comprehensiveness of the data and makes the data collection somewhat systematic" (Patton, 1990, p. 288). However, this very flexibility requires that the interviewer listen carefully and keep careful track of topics as they are covered to avoid repetition or ommission of relevant topics; for example, a topic that is placed at the end of the guide could come out in a conversation about an earlier topic. This approach also requires adaptability on the part of the interviewer to be able to respond to the context of individual interviews.

To ensure some consistency among interviews and efficient use of interview time available, copies of the interview guides were made so that they could be used as checklists, one per interview. Also, to familiarize the researcher with the interview guide and to capture possible difficulties, practice interviews were held with both a

college educator and a college student.

Because a close rapport enhances the chances of a more informed interview, the introductions at the beginning of each interview were informal and care was taken to use language that considered the frame of reference of each respondent (Fontana & Frey, 1994; Merriam, 1988; Patton, 1990). Furthermore, rapport can be enhanced or hindered depending on how the researcher is presented. Just as it is important not to treat each respondent as an unimportant, faceless, quantifiable individual (Fontana & Frey, 1994), so, too, must the researcher not be presented as an objective, faceless interviewer. Heshusius (1994) argued for participatory consciousness involving identification in which the knower is not separate from the known. It requires an awareness of a level of kinship which calls for an attitude of openness and receptivity (Heshusius, 1994). Eisner (1992) discussed the need to recognize that there is no single method of inquiry and that the idea of objectivity is unrealizable. He argued that knowing involves a "transaction between objective conditions and personal frames of reference....When people do not share frameworks, there is no common ground; they cannot understand each other" (Eisener, 1992, pp. 13-14). Merriam (1988) cautioned the interviewer to remain neutral and nonjudgemental but to actively and sympathetically listen.

My many experiences as part of interview teams to fill vacant positions and to recruit students, and my training and experience in drama, allowed me to feel comfortable and capable during the interview process. Furthermore, respondents appeared relaxed and seemed to enjoy the interviews. To facilitate rapport, I chose to

introduce myself to the educators as a college teacher who is also studying; when I met the students, I emphasized my role as a student who is also teaching at another college. Therefore, frames of reference became shared and a kinship was possible with both educators and students.

Interviews lasted between one and two hours and were conducted in private. Permission was sought and granted to tape record each interview. Verbatim transcripts were made of each interview and data analysis began almost immediately in order to keep the researcher sensitive to emergent themes and concepts.

Member checks were made of the data and interpretations to ensure internal validity. Summaries, ranging from 8 to 15 pages in length, were made of each transcript and each summary was mailed to the corresponding participant asking for verification of the data, correction and/or clarification (see sample in Appendix G). In total, eight summaries were returned, four from the educators and four from the students. A letter of reminder had been sent after one and a half months which resulted in the fourth response from one student. In seven cases, changes were nonexistent or minor; terminolgy or spelling was corrected and explanations were expanded where requested. In one case, the respondent was concerned about anonymity and changed or crossed out any identifying descriptors such as program affiliation or personal descriptors. Furthermore, this respondent was concerned about the language used in some of the quotes and made changes to ensure the comments were both tactful and unambiguous; however, the meaning of these quotes was not changed.

The format for the summary followed that suggested by Miles and Huberman (1984) who advised that such a form helps to serve as the basis for data analysis and to reorient oneself to the contact. The summaries also served as the first phase of data reduction.

An interview was held with a key informant who was able to provide contextual information and insights (Patton, 1990; Yin, 1989) based on experience as the resident curriculum consultant. "A good informant is one who can express thoughts, feelings, opinions, his or her *perspective*, on the topic being studied" (Merriam, 1988, p. 76). As an educator, the key informant was part of the culture under study but also had a broader perspective and specialized information (Merriam, 1988) based on interactions with the whole college population as a curriculum consultant.

Personal Documents

Approximately one month before the interviews with the student sample, a meeting was held with each student to discuss the concepts of the study and to ask each participant to keep a journal, an anecdotal record, or a scrapbook, in whichever format was comfortable for the individual. Participants were asked to record reflections, activities, behaviours and insights as they related to their learning. These provided a reliable source of data concerning each student's attitudes and served to remind the student of certain events and insights when the time came for an interview with the researcher.

Students were asked to bring their journals with them at the time of their interviews. One student forgot hers and another reported that she had been too busy to keep one. The student who forgot hers was sent a reminder letter asking her to forward it; however, it was never received.

Documents

Any written material related to the phenomenon under study and accessible to the researcher was collected and included in the data base. These included materials that related to courses of study which participants voluntarily offered such as course information packages, project evaluation and sample learning packages. Institutional documents included the college calendar, admission information, and the student newspaper. Included among the institutional documents were those not available for public distribution such as a human resource plan, enrolment activities, memoranda circulated among college administrators regarding the academic paradigm shift, and reports and correspondence related to the institutional context that had direct impact on the teaching/learning process. The researcher's correspondence and conversations with people who were not part of the sample but who were part of the context were also included in this category of data collection. Data collected from documents provided an historical perspective as well as further insight and understanding of the context of the study.

Field Notes

Descriptive field notes of settings, events and activities as well as portraits of participants and their interactions were kept. Reflective field notes were also included as a form of ongoing evaluation. Notes were made immediately following each interview session or informal conversation and overall reflective notes were made at the end of each day at the site; notes at the end of the day were generally tape recorded while I was travelling. Informal conversations included those with the Dean of Academic Planning as well as those with educators who invited me to join them at lunch.

Research Procedures

Access

A preliminary meeting was held late spring 1992 with the Academic Vice-President of the Ontario College chosen for the study to explain the basic concept of the research and to ask for assistance and permission to pursue the study on the college campuses. Verbal support and permission was granted at this time. Because the college is a four-hour driving distance from the researcher's base of operations, a contact, Dean of Academic Planning, was made available to assist when necessary.

Permission to conduct research with human participants was requested from the Brock University Subcommittee on Research with Human Participants once the proposal had been accepted by the thesis committee (see Appendix H).

Upon permission being granted to proceed, a copy of the proposal and a letter confirming the college's participation were sent to the Academic Vice-President and the Dean of Academic Planning. The college also was offered a copy of the results when the study was completed.

Launching the Survey

A follow-up telephone meeting was held with the Dean of Academic Planning in the fall of 1992 to discuss the study and research procedures and to answer any questions. The survey and covering letter to faculty were approved by the dean before distribution to all full-time faculty at his college in November 1992. Distribution of coded surveys and their collection were facilitated by the secretary to the dean who offered to assist with these and any subsequent procedures; the secretary provided computer print-out address labels and, to keep costs down, ensured the packages were distributed through inter-office mail.

Each full-time faculty member received the following: a personalized letter explaining the purpose of the survey and asking for his/her assistance; an addressed return envelope c/o Secretary, Dean of Academic Planning to facilitate the return of the survey by early January 1993 through inter-office mail; and a coded survey. Completed surveys were collected mid-January 1993. A second mailing went out at this time to those who had not responded requesting that they complete and return the survey by the end January 1993 (see Appendix I).

The Educators

Surveys were analyzed using SPSS.PC and an educator sample was selected by mid-February 1993. Selected educators were sent a letter asking for their cooperation and an interview to be held early March 1993 (see Appendix J). Each person received a follow-up phone call at which time an appointment was set if participation in the study was agreed upon. Participants were asked to bring the signed consent form which was included in the letter and to set aside two hours for the interview.

To ensure participation of at least six educators, and to avoid any time delays in case one or two people declined involvement, eleven letters were sent. Because the first six people who were contacted agreed to participate, the remaining five received a follow-up letter explaining that their participation would no longer be required.

Six interviews were held during March 1993 on two separate campuses, three interviews per campus. Five interviews were held in neutral meeting rooms to avoid the possible distraction of interruptions. The Dean of Academic Planning's office assisted in booking meeting rooms. Due to an administrative emergency meeting at the time of one interview, it was necessary to conduct this interview in the faculty member's office.

Key Informant

One key informant was interviewed. This was a member of faculty who had been recommended by two participants and two contacts as someone with an informed

perspective because of curriculum development activities. It is interesting to note also that this educator had been one of 14 educators whose survey results indicated support of self-directed learning. However, because a maximum variation sampling strategy (Patton, 1990) was used and another educator from the same department and the same campus was already participating, this educator had not been approached to participate in the study.

The Students

At the end of each interview, each of the six educator participants was asked to recommend two traditional-aged students--between the ages of 18 - 26 years--who were recognized as self-directed learners. A sample of twelve students was requested to increase the chances of getting at least six participants. Selected students received a letter which was delivered by the faculty member who was providing the recommendation. The letter introduced the researcher and the study, explained why the student was being approached for this study and requested the student's participation (see Appendix K). If students agreed to participate, they were asked to provide their phone numbers to the faculty member who was subsequently contacted by the researcher for this information.

A follow-up phone call was made inviting the students to a meeting at the end of March 1993. To accommodate individual student timetables, six meetings were scheduled to meet eleven students over two days; four meetings were scheduled at one campus and two meetings were at the other campus. Students met with the researcher

in small groups or individually in neutral college meeting rooms. Because of her placement schedule and a part-time work schedule, one student was not available for a meeting during the last week of March 1993; one student, with whom a meeting had been scheduled, had to cancel and another was absent from her scheduled meeting. In total, nine students attended a preliminary meeting to learn more about the study.

At each meeting, the students received a comprehensive explanation of the study and were invited to participate or withdraw after some dialogue with the researcher; students were asked to sign consent forms at this time and each was advised that withdrawal from the study was possible at any time (see Appendix J).

All agreed to participate at which time they were given the two instruments, SDLRS and Learning Style Inventory; both written and oral instructions were provided for completing the instruments. Written instructions for self-scoring were provided at the end of the two-instrument package. The researcher was present throughout to assist where necessary. Once the instruments were completed, the researcher discussed the concepts being explored in each instrument and how to read the scores, and facilitated a discussion about the results. Students were also encouraged to discuss their perceptions of the accuracy of the scores.

At the end of each meeting, students were asked to start keeping an anecdotal journal or a scrapbook to record their reflections, insights and observations on their present and past learning experiences. They were asked to bring these notes with them to an individual interview which was scheduled with each student at this time for May 1993 after the current school term was finished. At each meeting, participants

were assured that all information was confidential and that their participation was voluntary.

Students received a follow-up letter thanking them for their participation so far and confirming the time and place of the individual interviews. At this time, one participant, a mature student, was contacted by telephone and informed that, since the study was being conducted with traditional-aged students, her participation so far was appreciated but that no further study was necessary.

Interviews with seven students took place after the school term was over to avoid any conflicts with course assignments and end-of-term stress and to enhance reflectivity. Interview times were set up to be mutually convenient to each student and the interviewer and took place in either a college meeting room or an empty classroom at one of the college's campuses; in the case of one student, it was more convenient to meet in an empty classroom at a different college which was in her home town where she had begun summer employment in early May 1993. One student was unable to continue with the study due to a death in the family.

In total, five overnight visits, two days per visit, were required to complete the interview portion of the study.

Data Analysis

Quantitative Data

Descriptive statistical analysis of the Teaching\Learning Survey was conducted

using SPSS.PC. Frequency distributions, measures of central tendencies and measures of variability were used to provide an overview picture of the data (see Appendix L). Correlations were calculated to check the inter-item correlations. Based on inter-item correlations (see Appendix M) as well as the responses of faculty with a background in adult education, a set of 11 items were selected as indicators of support for self-directed learning. Possible participants for the study were selected based on their responses to these 11 indicators; positive responses (> 2) among a minimum of eight items was the criterion for the selection.

Demographic information was analyzed for overall descriptions of the sample and the demographic information was also used as dependent variables to make comparisons among disciplines taught by respondents, educational background of respondents and level of students taught by respondents.

Qualitative Data

The analysis of the qualitative data followed an inductive process of organizing the data into categories and identifying patterns and themes that emerged from the data (Merriam, 1988; Patton, 1990; Schumacher & McMillan, 1993).

While data were being collected, notes were being kept which summarized the essential elements of each interview, contacts in the field and observations; tentative patterns were being identified.

Interviews were transcribed verbatim, after which each interview was reduced into a summary capturing the salient features (main themes, issues and questions) of

the conversation, including quotes. To create this summary, I listened to each interview a second and third time while reading the transcript, making notes and highlighting units of information (Lincoln & Guba, 1985). The resulting summaries ranged from 8 to 14 pages and were called Contact Summaries (Miles & Huberman, 1984); each summary was mailed to the corresponding participant for validation. Any terms or comments which were ambiguous or unclear were noted and clarification was requested.

After creating each summary, I made further notes and recorded images, metaphors and descriptive language that were used by the participants.

Next, documents, field notes, the transcript from the key informant interview and notes from other conversations were reviewed; notes were made and relevant data were highlighted. Again, a running list of ideas was recorded (Merriam, 1988).

Organizing the data into categories and clusters proved to be a challenge as I moved between the data and the literature on qualitative research. Initial attempts at coding were based on Miles & Huberman's (1984) suggested techniques. However, the resulting categories felt stiff and unnatural. Merriam (1988) argued that the creation of categories is largely intuitive and that there is a danger in using borrowed classification schemes. Borrowed classification schemes can hinder the generation of new categories and undermine the exploratory attributes of qualitative research (Marshall & Rossman, 1989).

I returned to three contact summaries per sample group, the research proposal (Yin, 1989) and the interview guides (Patton, 1990) to generate new categories.

Educator data and student data were coded separately although there was some overlap in the resulting categories. Once categories were established, data were further divided into topics.

Extra copies of all coded data were made and filed for safe-keeping and one copy was used for manual clustering and displaying of data using a cut-and-paste method (Miles & Huberman, 1984; Merriam, 1988; Patton, 1990). Although the qualitative research literature suggested the use of file folders and index cards to sort data manually, I chose to use large flip chart conference pads to facilitate visibility of data for retrieval purposes.

The final phase of analysis consisted of descriptive interpretation and theme analysis (Merriam, 1988; Schumacher & McMillan, 1993).

Limitations

The limitations of the research design of this case study can be identified as follows:

1. The perception of self-directed learning by participants could have been affected by the nature of the implementation of the academic paradigm shift; for example, the academic paradigm shift at the college had been imposed by administration and implemented without much lead time;

2. Although the academic paradigm as implemented was referred to as self-directed learning, there may be different interpretations of this term. This study focussed on self-directed learning as a theory of practice according to Knowles's

definition of a learner-directed approach. The reality in this situation was that the paradigm shift was implemented for budget reasons to cut costs in terms of teacher-student contact hours rather than incorporating concepts of self-directed learning as comprehensive as the literature;

3. The current climate of job insecurity during a time of fiscal restraint could affect respondent reactions since the common conception is that self-directed learning makes an educator redundant;

4. Because of the possibility of a morale problem and job insecurity, there could have been a lower return of instruments from the faculty;

5. The Teaching and Learning Survey might not have screened out those who believe they are engaged in facilitating self-directed learning but who in fact do not practice it. For example, it is likely that those who have studied related theories and principles will respond "correctly" rather than realistically. This limitation could have been offset with participant observation to provide data on practice as well as data on participant perception of practice;

6. Although a return rate of 61% is considered good, 38% of the college educators did not respond. Perhaps descriptive statistics should compare this sample with those who responded;

7. Two students did not submit a journal and five of the respondents (three students and two educators) did not reply to the contact summaries which were sent out asking for verification of the data. This could have been due to the time lapse between the interviews and their receipt of the summaries (one school term);

8. The return rate may have been affected by the use of the inter-office mailing system. Several surveys were returned via Canada Post and found their way to me because Brock University envelopes were used. It seems that respondents either mistakenly put the surveys in the wrong mailing system at their college or did not notice the instructions to mail them internally;

9. To explore perspectives of self-directed learning in this college setting, those educators and students who do not facilitate or practice self-directed learning should have been included in the study;

10. Institutional constraints must be taken into consideration because they often contradict the basic concept of learner control over learning processes and curriculum content. In fact, these same constraints also impact on the educator's autonomy to exercise control over these same processes;

11. Students were selected based on the educators' concept of self-directed learning which may or may not have agreed with concepts of self-directed learning as comprehensive as the literature. Furthermore, it is possible that student selection was biased in favour of those who were academically successful and/or female;

12. Because one educator was sensitive to possible identifiying descriptors such as marital status and program affiliation and ensured all such descriptors were removed from the contact summary, one must question how forthcoming those who seemed less concerned regarding anonymity were in their interviews;

13. One educator interview was held in the educator's office and, as a result, there were several interruptions. However, many of the interruptions were faculty

who had read my research proposal or had heard about it from the participant being interviewed (participants had been informed that it was available in the Dean's office or the Vice President's office). It seemed that they were interested in meeting me and talking about the study. I did join them later for lunch that same day;

14. There was a possible distortion due to temporal sampling. The students may have been affected by end-of-term stresses and the faculty may have been affected by the stresses of short-term implementation of a new academic paradigm;

15. The findings could be distorted due to the purposive sampling process rather than a random sampling process. All of those who agreed to participate were volunteers and could represent a biased sample. Therefore, conclusions must be limited to this situation, time period, persons and context;

16. Lack of research experience on the part of the researcher must be acknowledged as a limitation.

CHAPTER FOUR: RESULTS

This chapter begins with a brief description of the context within which the study was conducted followed by a description of the college where the interviews took place. Next, the participants are introduced and then the qualitative data are analyzed separately for educators and students according to emergent themes. The data analysis is then synthesized to capture recurring themes and images.

The Context

> Given the Government's recent announcement concerning changes to the operating grants, there is a heightened sense of urgency regarding restructuring and it is all the more important that we take a concerted look at avenues for restructuring our activities to be both more efficient and more effective. (R. Johnston, Chair, Council of Regents & R. Benson, Assistant Deputy Minister, Post-Secondary Institutions, open memorandum to members of the college community, November 30, 1992)

The above memorandum was accompanied by a proposed agenda for college restructuring which outlined the major themes. Of particular interest to this study was the first theme referred to as "alternative delivery: a) self-directed learning" (College Restructuring Steering Committee, 1992, p. 6).

Restructuring, paradigm shift, transformation--these are the buzzwords of the 90s and at Ontario's Colleges of Applied Arts and Technology (CAATs) as they reconsider their function and structure during a period of fiscal restraint and

accountability. Responding to the call to implement changes in order to "adapt to the pressures for change, or be overtaken by them" (Ontario Ministry of Colleges and Universities, 1990, p. 5), the college for this case study responded with system-wide changes for the academic year 1992 - 93 which became known as "The Academic Paradigm Shift." Furthermore, within the CAAT system, this academic paradigm shift quickly gained the reputation as a self-directed learning model.

Ontario College

To preserve anonymity, the college for this study is called Ontario College. The college's admissions handbook states that its commitment is "to train people for careers in an ever-changing society."

Programs are established according to needs in the area and the availability of jobs. Curriculum is designed with the assistance of advisors who are drawn from the services, industry, and businesses related to the individual programs.

Situated in a tourism and industrial centre with a population of between 200,000 and 300,000, Ontario College was founded in 1966 and is meant to be a commuter college, designed to meet the needs of the local community and county with a variety of day and evening programs. The city also has a university and is within commuting distance of several other universities.

At the time of this study, full-time post-secondary enrollment was approximately 4,000 and there were more than 600 full-time and part-time faculty on staff. Ontario College offers more than 50 one-, two- and three-year post-secondary

programs in a broad range of disciplines including health sciences, social sciences, technology and trades, applied arts and business. Many of the programs incorporate a clinical or work experience component. The minimum requirement for admission to a post-secondary program is an Ontario Secondary School Graduation Diploma at the general level or an Ontario Secondary School Graduation Diploma or mature student status.

The Campuses

This study took place at two campuses, called City Campus and Town Campus for the purposes of this study.

The origins of City Campus are rooted in a technical school. The college is proud of its trades' wing at City Campus, as well as an automotive building, greenhouses and an adult training centre. Health Sciences programs have balanced the student population more evenly between male and female students. This campus is the largest of three and is considered the college's main campus.

Town Campus opened in 1971 and is considered a satellite facility. It is located in an attractive city with a population of 45,000 and a primarily agricultural economic base. This modern facility is beautifully situated on the banks of a river and offers full-time post-secondary programs, continuing education courses and adult training. Most programs are identical to those offered at City Campus; students have the option of choosing the campus that is most convenient. However, some programs are unique to Town Campus such as the Developmental Services Worker and the

Mechanical Engineering Technology - Energy Management Programs.

City and Town Campuses of Ontario College are beautifully landscaped and this beauty is carried indoors at both campuses where there are large, naturally-lit, open common areas at the entrance ways intended for student gatherings. An abundance of large windows ensures many interior spaces are bright and inviting, including the resource centres at both campuses. Because of this layout, upon entering each building, the visitor is conscious of an active and lively student body.

As mentioned by several of the participants, space is at a premium at both campuses; however, the college appeared to make every effort to use whatever space is available to encourage students to gather in groups or to create work spaces. For example, at City Campus, at every bend and turn, hallways house comfortable chairs arranged in clusters and worktables and study carrels line the walls.

Programs Represented in this Study

Five programs are represented in this study: Nursing, Dental Hygiene, Developmental Services Worker, Sign Language Interpreter, and Community Services.

Nursing

A three-year program offered at both City and Town Campuses, this program requires students to successfully complete a substantial number of hours in a clinical placement at local hospitals in addition to course work on campus. Weekly hours for

clinical experience range from 17 hours the first year to 35 hours in the last semester. Since this program is oversubscribed, students with higher grades or advanced standing in academic requirements are more likely to be admitted.

The college calendar describes successful nursing students as friendly, outgoing leaders who enjoy working as part of a team. To achieve professional status as a registered nurse, graduates must write the Canadian Nurses Association Testing Services examination.

Dental Hygiene

Offered only at City Campus, this two-year program includes one year in the Dental Assistant Program and requires a minimum of 12 to 36 consecutive months of chairside assisting and/or dental public health experience prior to acceptance into the final year. Diploma requirements include 15-18 hours of clinical experience per week. Since the number of applicants exceeds the number of places available, a rigorous screening process is used to ensure those selected will have the highest likelihood of success; selection is based on academic achievement and a comprehensive dental test.

Initiative, organizational ability, maturity, interpersonal skills and a strong sense of commitment are among the descriptors used in the college calendar to describe the attributes of a dental hygienist. This program is accredited by the Canadian Dental Association.

Developmental Services Worker

Through a two-year program offered only at Town Campus, graduates of this program are trained to work with the developmentally disabled in community-based residential, vocational, support and developmental programs as developmental teacher aides and in other support positions. Students are assigned practical learning experiences in supervised clinical placements ranging from 10 to 12 hours per week for up to 15-week periods as well as 12 to 24 hours per week for up to 15 weeks in a community service setting where students assess clients and design and implement programs intended to address the needs of persons with developmental disabilities. This is a six-semester program; two semesters are devoted exclusively to placement. Applicants are also encouraged to gain volunteer experience with an agency prior to applying for the program.

Students of this program develop skills to facilitate decision making and effective community participation. The ability to provide support and to be flexible are described as key requirements for success.

Sign Language Interpreter

Described as a three-year program, the Sign Language Interpreter Program includes a two-year Sign Language Communicator Program. Field experience is built into the program and ranges from 3 to 9 hours per week in Year Two to 9 hours per week in Year Three when students gain experience interpreting for the deaf in a variety of settings as they work alongside a professional interpreter.

Graduates of this program can seek employment as instructors and as interpreters in educational, medical, legal and mental health situations. Students are advised that the work is extremely demanding and requires patience.

Community Services

Because one of the participants asked that the program not be identified, the fictitious title Community Services will be used since it captures the essence of the program. This is a two-year program and it includes 4 to 12 hours per week of clinical placement each semester. Upon completion of this program, students can enrol in a Bachelor of Arts program at the local university and receive the equivalent of ten semester course credits.

Successful students are described as caring, patient, organized and committed to excellence. Graduates can seek employment as group leaders, home visitors, administrators and educators. Provincial certification is also available to graduates of this program.

Participants

Educators

A purposive sample of six educators who teach full time in the post-secondary programs described above participated in this study. This sample was selected based on results of the teaching and learning survey designed to measure instructor support

for self-directed learning (described in chapter 3). All indicated that they were supportive of self-directed learning among their students and that they possessed some prior theory-based knowledge of adult education principles. Furthermore, this purposive sample represents some diversity of disciplines.

There were four women and two men in the sample group of educators and all were keenly interested in discussing their philosophy of practice and took pride in their work. Furthermore, each participant made me feel welcome and comfortable while I was on campus. To preserve anonymity, pseudonyms are used to introduce the participants.

Betty Ann, about 49 years of age, has been teaching nursing at Ontario College, Town Campus, for 11 years, full-time. For the prior seven years, she worked at the hospital and taught part-time. She holds a Bachelor of Science Degree in Nursing Education as well as a diploma, Education of Public Health. She also has completed a program called Orientation to College Teaching which grants a certificate after participation in the program for one week a year for three years.

Betty Ann's teaching areas are maternity nursing and psychiatric nursing and she is rarely assigned to teach first-year students. Whenever she is assigned to teach in an area with which she has lost touch, Betty Ann takes some related courses and secures some practical experience: "I will always go back and do some time in it...to get to know the staff [at the hospital], the routines and the philosophy of how they approach their work."

A relaxed and sociable person during the interview, and later during lunch,

Betty Ann stated that she prefers working with students in the clinical setting because the students are in small groups and she enjoys a more personal rapport with them. She derives a great deal of vicarious pleasure in learning about her students' experiences with clients. Betty Ann described herself as a humanist and as a "bag lady" in her approach to teaching. She stated that she enjoys "life, humour and [her] own skin." In her leisure time, Betty Ann is learning about worm farming.

Rick, about 35 years of age, has been teaching full-time for 10 years in the Developmental Services Worker Program at Town Campus. He is currently the coordinator of the program. Rick holds a Bachelor of Arts degree in Psychology and a Social Service Worker Diploma. Courses in education include Orientation to College Teaching, some university courses and one college course. At the time of the interview, Rick was considering taking a Master's Degree in either adult education or community services. He stays abreast of his field of study by taking special courses or workshops that are frequently offered through community agencies.

Rick teaches courses related to interpersonal communication and counselling and he also supervises field placement. Before starting his current position at Ontario College, Rick worked with the developmentally disabled. A calm, composed person, Rick believes students are responsible for their own learning and he described himself as flexible because he tries to offer choices wherever possible. He stated that experience has taught him "not to get in knots if students don't get it"; instead, he takes the time now to help students "catch on."

Janice, about 57 years of age, teaches in the nursing program at City Campus

and she has the most teaching experience among the participants--34 years; 21 of those years have been at Ontario College. She holds a Bachelor of Science Degree as well as a Nursing Education Diploma and she noted that she has taken many inservice courses offered through the college. Furthermore, Janice remarked that she has learned about adult education through extracurricular readings and guest speakers.

Noting that she has experience and knowledge in most nursing areas, Janice reported that her assignment at the time of this study consisted of Pregraduate Clinical Experience and Medical Surgery. She is the hospital liaison for the program and a coordinator. An enthusiastic, friendly person, Janice demonstrated a keen interest in this study and an eagerness to be cooperative. In fact, although all participants had been informed that a copy of this study's proposal was available in the Vice President Academic's office, Janice was the only participant who read it prior to the interview. Furthermore, she shared it with many colleagues in her department who dropped by during the interview to meet me. A collegial department, I was subsequently invited to join several members of this department for lunch to discuss issues related to the academic paradigm shift and self-directed learning.

D'Arcy, about 29 years of age, has been teaching Sign Language Interpretation and Sign Language Communication at City Campus for six years; two years were a part-time appointment. He also has experience teaching sign language for community education programs, and has worked as a lab technician and tutor. D'Arcy freelances as an interpreter in a variety of settings and he talked enthusiastically about his work in theatre and opera although his specialty is medical interpreting. At the time of this

study, D'Arcy was studying part-time in a Masters Of Education program designed for college educators and had participated in the first phase of the Orientation to College Teaching Program. He also holds a Bachelor of Arts Degree in French, Spanish and American Sign Language as well as an Associate in Arts Degree in Sign Language Interpreting and French.

A youthful, talkative and energetic person, D'Arcy described himself as "a cut-up." He enjoys what he described as "zaniness" in the classroom because he also wants the students to enjoy themselves while they learn. In fact, D'Arcy seemed anxious for students to be happy and, as a result, he felt that often his teaching style was inconsistent. However, he stated that this was preferable to a rigid approach.

Allison, about 35 years of age, has 13 years experience teaching in the Community Services Program; 8 of these years were part-time when she was also working as a supervisor and resource person with a community agency. Allison holds two college level diplomas in related career specific disciplines. Although recently she had been studying part-time at the undergraduate level, she reported that she had to take a leave from her studies because of time constraints. The Orientation to College Teaching Program was cited as influential to her teaching because it raised her confidence: "I realized that I am doing a good job here." Allison appreciates a strong working relationship with faculty of this program at both campuses whom she noted work very closely together to review curriculum.

As a role model, Allison seems to set high standards for herself; she described herself as punctual, reliable and prepared.

Maria, about 32 years of age, has been teaching in the Dental Hygiene and Dental Assistant Programs at City Campus for eight years. Prior to teaching at the college, she taught dental hygiene for two years in public schools as a member of a public heath unit and worked as a dental assistant for three years. Maria holds a Dental Hygiene Diploma and a Dental Assistant Certificate. Family commitments prevent her from pursuing a Bachelor of Science Degree for now; however, Maria reported that she steals every opportunity to take upgrading courses and seminars.

Her duties include coordinating the Dental Assistant Program, supervising field placement, teaching Clinical Practice for both Dental Hygiene and Dental Assistant and teaching a Dental Materials course. A youthful, energetic, friendly person, Maria reported that she likes to be creative in her teaching and that she works very hard. However, as a result, she often works late and is tired; at the time of the interview, her objectives were to create a structure that would alleviate her workload as well as ensure student satisfaction.

Students

A purposive sample of seven students was selected to participate based on the recommendations of the educator participants; each student was perceived to be a self-directed learner. All of the students were young women.

At our first meeting together when the study was explained to them, students participated in a workshop in which they completed two instruments intended only to raise an awareness of learning styles. The results of the Self-Directed Learning

Readiness Scale (SDLRS) and the Learning Style Inventory (LSI) will be reported as part of the description of each student.

Kate, 21 years of age, is a first-year student in the Sign Language Interpreter Program. She entered college immediately following high school and is living away from home while she is at school. While she is attending Ontario College, she has had to put her music interests (piano and flute) on hold.

Both times that we met, Kate conducted herself with friendly confidence and seemed to have a very clear direction for her life. When she was completing the SDLRS and LSI instruments, she was calm and methodical. Her score on the SDLRS was 208 which is considered average and her learning style was identified as diverger, indicating that she prefers learning by concrete experience and reflective observation. According to Kolb (1976), divergers are interested in people and counsellors often have this learning style.

Wendy, 21 years of age, is a second year nursing student attending Town Campus. She entered college immediately following high school and lives at home with her parents. She plans to continue studying after she graduates from Ontario College to get a degree and specialize in oncology for children.

A self-assured person with an independent and proud spirit, Wendy was quite interested in exploring her learning style. She referred proudly to her added responsibilities at McDonald's where she has been working part-time and "forever" which she compared to the responsibilities she has been given when on clinical placement at the hospital. Wendy scored 240 on the SDLRS which is above average

and her learning style was identified as diverger.

Theresa, 21 years of age, has just completed the second and final year of the Community Services Program and she arrived at the interview carrying an armload of graduation photographs to proof. She was proud to report that she won an award for the highest grades in her class. Theresa has been married for two years and lives with her husband. She took one year off between high school and college in order to work and prepare for her wedding. At the time of the interview, she had two part-time jobs: one at a treatment centre where she has been hired to work in a family home with a disabled child for the past one and a half years and the other at a convenience store where she has worked part-time for three years. Theresa hopes to continue her studies in order to specialize.

A calm and capable person, Theresa also gave the impression that she likes to be organized and prepared; she came to our first meeting bearing an appointment calendar. On the SDLRS, Theresa scored 256 which is considered a high score. Her learning style was identified as converger indicating that Theresa's dominant learning abilities are abstract conceptualization and active experimentation. According to Kolb (1976), a converger's greatest strength is practical application of ideas.

Charlotte, age 21 years, is a first-year student in the Developmental Service Worker Program at Town Campus. She attended a university for half a year before coming to Ontario College. She lives at home with her parents. A priority in her life is her boyfriend and she emphasized that she is well organized to ensure quality time with him.

A friendly, outgoing and confident person, Charlotte was quite talkative. She scored 229 on the SDLRS which is above average and her learning style was identified as diverger.

Suzanne, 22 years of age, and a first-year nursing student at City Campus, had completed two years at a university before coming to the college. She attended university after a half year off upon completion of Grade 13. When she graduates from the nursing program, Suzanne intends to complete her university degree and eventually go into teaching. Suzanne is living at home with her parents and working at least 15 hours a week as a front desk clerk in a medium-size hotel.

Friendly, enthusiastic, and self-assured, Suzanne is a "fast tracker." She referred to fast tracking through high school because she completed Grade 13 after four and a half years; she was also on the fast track at Ontario College to complete a three-year program in two and a half years. Suzanne scored 256 on the SDLRS which is high and her learning style was identified as accommodator indicating that her dominant learning abilities are concrete experience and active experimentation. According to Kolb (1976), accommodators are good at carrying out plans, being involved in new experiences and adapting to immediate circumstances.

Kristin, 22 years of age, and a Dental Hygiene student at City Campus, entered college immediately after high school. She has also completed a one-year Dental Assistant Program at a different college and has worked for two years as a dental assistant. Kristin is living on her own while attending Ontario College.

A well organized and focussed person, Kristin arrived early for her interview

in order to ensure she would be early for her dental clinic assignment immediately following the interview. Reference to time figured into much of her conversation during the interview; for example, she referred to insufficient time to learn all that is required in the Dental Hygiene Program, and insufficient time to read everything she would like to read. Kristin scored 246 on the SDLRS which is above average and her learning style was identified as accommodator.

Dana, 28 years of age, is the oldest student participant involved in this study. She was in the Dental Hygiene Program at City Campus after six years of experience working as a dental assistant. Dana had attended university for two years after high school after which she took a dental assistant program in Nova Scotia, her home province. She has been married for five years and she and her husband only recently moved to Ontario.

A friendly, enthusiastic and comfortable person, Dana described herself as ambitious. She scored 277 on the SDLRS which is high and her learning style was identified as accommodator. She took great pleasure in reading the description of an accommodator and laughingly announced that her husband would agree she can be "impatient" and "pushy."

Key Informant

Barabara, a key informant, was interviewed because her name was mentioned by two of the educator participants and the research contact person; her work and opinions seem to be highly regarded by both faculty and administration.

Furthermore, she had heard about my research proposal from Janice and was interested in reading it. I met her when I was invited to join the nursing faculty for lunch one day at City Campus at which time I made an appointment to interview her.

Barbara is a member of the nursing faculty and also, as part of her assignment at the college, consults with faculty across the college to assist them with curriculum design. She has a reputation for encouraging self-directed learning.

Time Period for Data Collection

Educator participants were interviewed in March 1993, the second term of the new academic paradigm shift. Student participants met with me twice: the first time in early April for a workshop on learning styles and an explanation of the study. The second time was for an interview in mid-May after winter term exams and projects were completed.

Interviews were semi-structured, conversational, and face-to-face in a neutral setting on campus, with two exceptions: The interview with Janice was held in her office because the interview room had been double-booked; the interview with Kate was held at another college in her hometown because she had already gone home for the summer break.

Questions Guiding the Analysis

The qualitative analysis was an inductive process of organizing the data into categories and themes that emerged from the data. The following analysis represents

the final phase of this process and was guided by the following questions:

How do students and educators perceive self-directed learning as part of the teaching/learning experience within a college setting? For example:

i) Do students and educators have the same perspectives?

ii) Does the educator make a difference in terms of contributing to the development and competence of self-directed learning?

iii) Does the educator's theory-based background have an impact in the student's self-directedness?

iv) Who has control?

Educators

* How do they describe self-directed learning?

* What are the contexts in which they perceive self-directed learning to be taking place?

* Who do they perceive as self-directed learners?

* How did they select the self-directed learners for this study?

Students

* How do they perceive the teaching/learning process?

* How do they perceive themselves as learners and as self-directed learners?

* How do they believe the educator perceives them?

* How do they perceive the educator's role in terms of their learning?

* Does the educator make a difference? Who does?

The Analysis

First, data are analyzed separately for educators and students. Next, the context of the case study is considered followed by a synthesis of the analysis to capture resonant themes and images.

The Educators

Perspectives of Theory and Practice

In keeping with the duality of roles that these college educators experience as educators and professionals in human service fields, their goals for their students encompass values such as caring and compassion. Betty Ann refers to this as getting students to think "humanistically" toward patients and clients. Furthermore, this attitude toward the client requires that the student learn to believe in equality and to recognize that something can be learned from all patients. She also echoes the sentiment expressed by the educators of this study when referring to the nurse's responsibilities: "Nurses are important in giving support and encouragement but they should not be taking all the responsibilities; it's important to get the baby involved with the mom and dad and grandparents right away."

Maria expressed that she felt frustrated when she was filling out the Teaching/Learning Survey because she agreed with the philosophy of a learner-directed approach and would like to practice accordingly; however, she is unable to reconcile this philosophy with the practice: " [I] don't see a way by which to achieve

it and that bothered me."

In all cases, curriculum is predetermined by the individual program faculties. They believe that the students should receive an outline of their courses that is "really clear....[with] terminal performance objectives...and enablers that [state] 'the student will do the following' and if they look at that they realize...this is the important stuff" (Allison).

It seems that, if the students have a clear outline with which to work, they are able to anticipate the work that is required for the course and perhaps either prepare for classes or work ahead. "Students seem to like the modular form; if the material is given to them, they feel they have a base to start from" (Maria). However, Maria did indicate that she believes it is the students' responsibility to prepare in advance of class and she is not sure how many of them actually do.

The nursing department works with learning packages which they feel come close to allowing the students to be more self-directed. Both nursing educators indicated their comfort and involvement at being involved in curriculum design. The key informant, Barbara, confirmed that nursing educators have a reputation at the college for their involvement in curriculum design and that, in fact, historically, the nursing educators have been designing and revising curriculum for some time. "When we came to the college [in 1973], we were involved in developing the curriculum to implement moving to the college" (Barbara).

Roles and Responsibilities

Educators believe that they, as role models and as people, have some influence in terms of their students' learning. An interesting perspective of this concept is one based on the educators' experiences as learners; several commented on the memories they have of past educators. "Probably the person is going to be remembered for a long time after the material has been forgotten" (Rick). Furthermore, a relationship with a teacher is seen as important. In fact, Rick questions the relevancy of learning without a relationship with another human being as teacher. He, himself, would not like to learn from machines. Both Allison and Maria emphasized their consciousness of being "positive, professional" role models, with their students and with their clients in the field as well. "People observe what you do more than what you say" (Maria). Allison stressed the importance of her being able to model punctuality, reliability and preparation for class. Furthermore, because Betty Ann wants her students to value caring and compassion, "I make sure that they get a sense that I'm caring and compassionate because that's what I want them to value."

When participants spoke of their students, they used warm, inviting terms and they indicated a genuine regard for them. Betty Ann emphasized that she is concerned with how her students are doing, not just as learners but also as people; furthermore, she is concerned with how her students' clients are doing. Maria emphasized that she has always been concerned with being open with students and relating to them at their level; one of her objectives is to be seen as approachable by her students. Rick finds that he is more relaxed with students he has had on

placement and vice versa; he suspects students are more relaxed because they are not quite as anxious since they already know him from placement. Because educators and students relate in situations outside the classroom, in some cases almost as colleagues, they have more opportunities to engage in interpersonal communication.

Teachers were described as facilitators in terms of helping students to take more responsibility for their own learning. In fact, often students were encouraged to take more responsibility for their own learning because the educators had learned that they could not be the ones responsible for the students' learning; Maria discussed the need to provide as much guidance and attention as possible but within limits because "When I first started [teaching], I felt abused.... I try and give so much...I neglect my evenings, my homelife." Allison suggested that "instead of solving their problems for them, I have taken on the facilitator's role."

Several metaphors were used to describe the role of facilitation: Janice considers herself a helper; D'Arcy likens his role to that of a building contractor because he "provides the students with the tools and the blueprints [and]...it's like building a house together"; D'Arcy also called the students the conductors who are letting the band (the educators) know "where they need to go"; Janice referred to herself several times as "the guide from the side and not the sage from the stage." However, because Maria sees her students as being highly competitive, her role tends to be that of "coach."

Although the educators believe that students are responsible for their own learning--"That's their contract" (Maria)--there was general consensus that the

educator is responsible for helping to motivate or stimulate the student. Maria wants students to leave her class wanting to know more and, therefore, taking the initiative to learn more on their own: "I like to leave them thinking." Rick discussed helping the students get into a "frame of mind" in which they recognize and accept responsibility for learning, "this is my baby," which then will carry them further in their quest for learning: "This [attitude] can spill into further education." Janice tries to provide as many experiences as possible in order to get students "interested, motivated and enthused about learning." On the other hand, D'Arcy believes the educator needs to help motivate students but the student has the primary responsibility to be self-motivated; the student "needs to have the desire to learn."

The theme of student responsibility was emphasized as half of the learning equation. Educators referred to the necessity of students "meeting [them] halfway" (D'Arcy) or recognizing that learning is "a two-way street" (Rick; Allison). Therefore, Rick no longer gets overly concerned if some students are not catching on immediately; he stated that he has "given up chasing people around" but that he is "glad to be responsible for my end." Student responsibility also seems to indicate an ability on the part of the students to recognize when they are having a problem with comprehension and to let the educator know; for example, D'Arcy argues that students must be "honest enough to indicate...whether or not they are understanding." Allison emphasized that the students are responsible for doing the work and, if a student wants a higher grade, she will ask the student to consider what he or she feels is necessary to achieve a higher grade. "They have choices to make" (Allison).

Allison refers to her students as adults and emphasized their responsibility to be involved in their own learning; "I can't make them learn." Although there was general agreement that students are responsible, Maria referred to this as "accountability" and indicated that "students do not like to be held accountable for their own learning; they like to be able to point a finger at somebody."

The educators do not describe themselves as fulfilling one role only, but multiple roles. "I would say that I'm a counsellor, role model, all kinds of things, a mom at times" (Allison). The educator is also often referred to a learner; for example, D'Arcy believes that apart from expanding the students' knowledge base, he also wants to learn what they know. He also noted that students find this approach "interesting."

An Educator's Professional Experience

Although educators recognize that they come to the classroom with more knowledge and experience than the students, they do not consider themselves experts. They consider themselves "messengers" (Rick) who come to the class to share "what I've learned and my experiences" (D'Arcy). Betty Ann considers this knowledge and experience "reference material" and her task is to synthesize it. Betty Ann and Rick emphasize that they do not know everything; in fact, Betty Ann calls herself "a beginner" with much to learn in all areas - "you don't have to know everything." Furthermore, she stressed that she learns a great deal from her students' life experiences, which in turn has taught her that "there is no end to learning." Rick

believes that, even if he did know everything, it would be impossible to teach it all to his students in 16 weeks; his objective is "to whet the appetite." However, experience in the field is considered very important and Allison and Betty Ann recommend that educators should "get out there for a month, a year, and...do what their students are expected to do" (Allison). With this experience, the educator can then speak from experience rather than simply textbook theory. Furthermore, Betty Ann stresses how important it is for the educator to "get to know the staff, the routines and the philosophy of how they approach their care." This more practical experience will assist the educator to understand the needs of the students when the time comes for their clinical/field placement.

Duality of Roles: The Professional and the Educator

College educators, because of the experiential nature of the learning strategies and the risks inherent in the chosen fields of these particular students, experience a dilemma, a duality of roles. Furthermore, they had all, prior to becoming educators, chosen the profession as a field of practice for which they are preparing the students. "My primary role is educator and yet my love is also nursing" (Barbara). On one hand, they are educators but on the other, they are practitioners of their disciplines. The nursing educators were quite emphatic in this regard. "The educator's responsibility is to minimize...mistakes so that nobody is at risk" (Betty Ann). For example, during clinical supervision of students in the maternity ward, Betty Ann's first priorities are safety and current trends.

Educators Describe Their Students

Maria refers to her students as "highly motivated, extremely focussed, determined, disciplined, the most organized group of students." It is felt that the dental assistant and hygiene students have a college-wide reputation as good students because of their interest and dedication to learning; however, the "competitive edge" is perceived to be the primary reason for this dedication. Allison refers to the highly motivated students as those who learn more than what is expected of them; she describes these students as having "a good work ethic," or as those students whose grades are in the 90s but they "are going for a 95 because they want to know everything and they want me to know that they know that."

Commitment to learning seems synonymous to motivation. Betty Ann expects students to arrive committed and prepared, whereas Janice expects students to be enthusiastic and therefore unlikely to waste time (Janice). The self-directed learner is described as such a student: "The self-directed learner arrives prepared; they've looked things up, done the work, know the answers" (Janice).

The expense of education was cited as a representation of the students' commitment (D'Arcy). However, Allison questions how many students are indeed committed to their own learning in terms of involvement; there is a perception that many expect to be "given the information." Maria concurs with this image; she feels that students usually like to be "led down the garden path."

Student independence and commitment seem to increase as students gain more experience within the educational system. Both Allison and Janice believe that Year 1

students are more dependent, regardless of age.

Students who have been at the college longer are seen to become more independent, but, again, this does not necessarily depend on their ages. Betty Ann refers to those who are a year and a half into their program as "sort of trained....they already know how to research on their own." However, Maria emphasizes that "mature students are not necessarily more resourceful than the traditional-aged student." She cited as an example two mature students who do not feel ready for field placement and so will put in more hours at the college's dental clinic to gain self-confidence before going out to a dental practice.

It is assumed that a more independent student would be capable of taking an independent path in learning and may not conform just for the sake of conforming. Betty Ann referred to her own sense of security and independence with regard to the student's level of comfort: Because she is no longer afraid of how she appears to others, she is also able to more comfortably "value those who are not following just because they feel they have to."

Mature students are considered to more committed and motivated and, therefore, require less direction than younger students. In reference to the learning packages in the nursing program, Janice noted that "older students seem to have learning packages prepared ahead of time; whereas younger students often haven't started them." This same educator also emphasized that maturity and commitment do not necessarily refer to chronological age.

Experience and Field Placement

Practical, hands-on learning is an important part of the learning experience for all educators interviewed. "I just feel you learn by doing" (Janice). Furthermore, since learning may involve mistakes, Betty Ann feels students must be given the opportunity to make mistakes, that educators must make an allowance for students to make mistakes; "People must be given permission to try." Betty Ann prefers that students experience rather than read; in fact, when hours had to be cut from the program to save money, the whole nursing department agreed that clinical hours were not expendable. Clinical experience is seen to enhance a student's self-direction: "We need clinical contact hours to complete the experiences so [students] can learn it on their own" (Betty Ann). Betty Ann strongly believes that "life teaches you more than schooling does."

Experience helps students make a connection between classroom learning and practicality; Rick notices a big difference between first- and second-year students for this reason because second-year students have been on their first placement: "They start to make sense out of what they are learning." Group work and discussions are enhanced once students have practical experience upon which to draw: "Prior to the field placement experience, it is difficult for them to think of how they can apply the theory" (Allison).

Some educators believe that they have the responsibility of ensuring the students are ready for practical experience and that they are likely to experience success. Furthermore, the needs of the client/patient are of some concern to the

educator. "We want them to go out and be the best they can be" (Maria). Therefore, in this case (Dental Hygiene), students do not begin field placement until toward the end of their second term.

Because he believes that students should have as much experience as possible, D'Arcy tries to take students with him when he has sign language interpreting assignments. He feels that, if the student accompanies him as the second interpreter, the student then benefits by exposure as well as feedback from the lead interpreter as well as the hearing imparied community.

Self-directed Learning

Self-directed learning as a process was defined by Barbara, the key informant, and her definition was in line with the literature and the definition used for this study. She defined it as a process in which the students set their own goals, design their own way of achieving those goals and share in the evaluation process. Because of her involvement as a curriculum consultant, she is aware of "pockets of self-direction" in some programs but stated that the self-direction components tend to come toward the end of the program. One of the nursing educators (Janice) also defined self-direction as a learner-centred approach: "Students are doing their own learning, their own learning activities, and they have input into their learning. The teacher is there just to help them and guide them...and clarify things." She believes that the educator is necessary to help students "even though they are working on their own."

Other definitions and descriptions of self-directed learning were offered by the

participants but none were as comprehensive as the literature. While educators believe that education at the college should be encouraging and expecting more independence from students, particularly in areas of problem solving, it seems that aspects of self-direction such as learner control or learner autonomy have not been considered. This could be because educators are not fully aware of how to implement self-directed learning within the established structure.

Allison noted that she does ask students to share their objectives for the course with her at the beginning of the term and their objectives are "taken into consideration." Betty Ann mentioned that she believes in self-direction more than it is possible to practice it. She would also like to use student study groups in which the educator's role would not be predominant but again stated, "I don't know how to implement that."

In reference to academic courses, Rick referred to "incidental self-directed learning" that takes place; for example, students have study guides, they do their readings and they write the tests: "They pass...they don't do well, but they pass."

Initiative on the part of the student is considered to be an example of self-direction. This initiative is demonstrated when students want to know more about a topic that is introduced in class or when students do more on a project than the minimum requirement (Maria, D'Arcy). D'Arcy also refers to self-direction being demonstrated by dedication and commitment; for example, students come into the labs on their own time and ask for extra projects or give the instructor input regarding new ideas to try in class. Rick stresses that students do not need an educator to tell

them what to read or which film to watch. He would like to see students design their own learning packages with teacher guidance. To be prepared for class and to have taken the initiative to prepare a little more than what is required strikes Janice as self-directed: "They've talked to patients; they're in early, they've got it together"; whereas she describes the less prepared students as "just stumbling along." Initiative and organization were traits that Rick believes a self-directed student possesses: "They basically have everything organized and know where they're at and know where to go next."

The ability to learn from mistakes is also considered to be a self-directed trait because the self-directed learners have done enough work to recognize an error when it is pointed out to them; whereas, as Janice stated, "Those who haven't worked at it are lost and are just as likely to learn the mistake."

Some of the programs have adapted what they perceive to be a more self-directed approach by allowing the students more independence within a given structure. For example, Allison describes her approach in some aspects of a course in which the students are provided with learning outcomes informing them what they must be able to demonstrate upon completion of the course: "How the students go about doing that is up to them." Rather than expecting the students to know "everything," Allison expects students to have done enough research so that they know what resources are available and where to find the information they need.

On the other hand, Rick describes providing students with the resources to complete a course, but the students are responsible for using them on their own. In

this case, the educator is available for consultation. However, he emphasizes the need for the educator to be accessible for such consultation: "We don't want to disassociate the learners from the teachers."

The learning packages in the nursing program are designed in such a way that students can complete these on their own and not come to class if it is not necessary. Janice referred to a student who came into the program from university for this reason: "He never came to one class and he's an 'A' student." Furthermore, Janice feels that self-directed students, like this one cited, allow the educator to have more time available to assist those students who are experiencing difficulty with a self-directed approach and allow students to help each other in small groups.

A modular approach within the college term's parameters is considered a more self-directed approach by Maria; in this way, students have a little more flexibility to be self-paced. For Betty Ann, an example of self-direction would be a more independent approach to learning: students would be given objectives, readings and a list of videos and other resources; the student would be responsible for arranging other experiences such as home visits and interviewing as needed. Maria envisages an ideal situation in which the students can follow their own programs via computers, administer their own tests, mark their own tests to learn their errors, and repeat the test if they wish.

Active involvement in learning is seen as another criterion for self-directed learning. If the student is physically involved in learning rather than simply reading, passively listening to lectures or watching other students practice a new procedure,

that student is considered more likely to be a self-directed learner. D'Arcy worked with a building analogy when defining self-directed learning: "The teacher [provides] the tools." The course outline would be considered the blueprint and the educator's task is to give students enough confidence to build a house by themselves: "Here's the blueprint; here are the tools; go home tonight and build your house."

The university setting was often referred to as an opportunity for students to grow in self-directedness and independence. However, Allison referred to the college as a transition to studying at the university; the students have an opportunity to learn how to be more independent at the college but have more of a support structure because class sizes are smaller.

An aspect of the nursing program that is considered self-directed is the completion of learning packages which students are given at the beginning of the term. Janice believes the learning packages allow students to retain the material better and "it reduces their stress level because it makes what they are learning more realistic."

Betty Ann referred to herself as a self-directed learner but indicated her situation is different from that of students because she is drawing a salary and she can afford to learn what she wants. This is in keeping with her definition of self-directed learning: "I'm only going to learn what I'm interested...in a way that I can apply it to myself." Betty Ann believes that there are things students will not learn unless they have an interest or someone shows them they need it for a particular reason.

Perceived Problems with Self-directed Learning

Procrastination. The typical student's tendency to procrastinate if allowed independence was cited as a problem area. For example, although Maria described the dental assistant and hygiene students as a highly motivated group, she remarked that "They are not necessarily disciplined." To offset this "danger of irresponsibility," Maria sees the necessity of presenting self-directed study carefully and ensuring there is interaction with someone so that the students would have to be accountable.

Procrastination is the underlying concept in Rick's concerns with a self-directed approach as well, and he recommends the need to structure a course so that the problem can be caught early. For example, "In a six month course, the educator may not learn that a student isn't doing anything until month five, and then it's too late to do anything." However, he also perceives this lack of work as symptomatic of a student's inability or willingness to make a commitment and is concerned that these students "who have not yet learned to be independent would fall by the wayside."

Intrinsic motivation. Commitment to learning was cited as necessary in order for self-direction to be successful. If students are not motivated to learn or are not committed, there was general agreement that the self-directed approach to learning would fail. "If the person is really well motivated in the first place, it won't make a difference....if the person isn't, they are going to do the bare minimum" (Allison). Learning problems were cited as a possible reason the motivation would be missing: "Students who are not committed have learning problems or are not motivated [and]

find self-directed learning difficult" (Janice). However, Janice stressed that "The self-directed learner also enjoys learning more and is not complaining about workload." "It's just whether or not the motivation's there" (Betty Ann).

Students do not know what they need. There was general agreement that, although these educators would like to involve students more in the planning process, on the whole, students simply do not know what they need. Furthermore, it was felt that most students would not design a program of study that would expose them to stressful situations. For example, Allison noted that if students had been asked, "They certainly wouldn't have said, 'Put me through that stressful interview.' Because they haven't worked, they don't know what they need." Betty Ann echoed this sentiment with reference to the psychiatric nursing course and also stated that most students would be happy not to study this area of nursing unless they were inspired to think it is important.

Although Rick expressed that he would be reluctant to ask students to design their courses of study ("First-years aren't aware enough of the field"), he did suggest that second-year students might be more capable. However, even with second-year students, he had some concerns: "Even some second-years are narrowly geared to one job." He did emphasize that most students become more versatile as they learn more. Maria was echoing some aspects of this sentiment when she stated that, "student input might be possible with some objectives but not all."

Entry level skills. Success with the self-directed approach depends on a student's entry level skills. For example, D'Arcy recently had to change textbooks

midterm because students were having difficulty comprehending the one he was using. He expressed concern that students who "can't spell, [can't use correct grammar], do not know simple mathematical formulas, and can't do story problems," will have difficulty if expected to be responsible for their own learning. Maria referred to the need for students to have some background to which they can link their learning; without this background, "it's like dropping somebody in Russia"; often even the language is new for students. Furthermore, students are unlikely to experience success with self-direction if they lack basic prerequisites: Allison noted that an assignment is of no use to a student if that student does not know how to access available resources.

Student resistance. Student expectations often create a problem if an educator tries a nontraditional approach in the classroom; for example, Janice commented on the resistance she has felt when she does not simply lecture to the class: "Students' past experience of being lectured to leads them to continue to expect this style of teaching, where the teacher is the expert."

Learning to be Self-directed

Self-directed learning was described by participants as a skill, one that can be developed and one that needs time to be developed. "Some students require a longer time to develop this ability" (Maria). Janice emphasized the need for preparation and support which "would also ensure commitment." Furthermore, participants believe the skill to be self-directed requires that the students have some foundation on which

to build: "If you throw a student into [self-directed learning] without that base, without the skills, then they just flounder" (Allison). Rick believes that most students can be self-directed as long as "we put in the up-front time with students individually or in class." Janice concurred and suggested that students "get used to self-directed learning" if they are introduced to it in the first term.

Teaching Strategies to Promote Self-directed Learning

Participants believe that they have some influence in facilitating students to be self-directed. Rick described his relationship with many students as "good" and that, because he has a "personal bias" toward self-direction, the students are inclined to favour self-direction as an approach to learning. Educators stated that an approach to facilitating self-directed learning is to provide students with some **information and resources**. For example, D'Arcy consults with students individually and gives them some ideas: "They work out a way and I just validate it and support it." Furthermore, D'Arcy invites students to borrow any of his books and materials; students who take advantage of his "open door policy" are considered to be self-directed: "the ones who are really self-motivated and do stuff on their own." Maria tries to influence students to be self-directed by providing information and resources and then consciously indicating to students that there is more to know and discover.

Playing "devil's advocate" is a favoured approach used by Allison which she described as facilitative of self-directed learning. For example, Allison reported that she encourages students to engage in problem solving. If students have questions, she

will **turn the question around** so that students have to come up with the answers: "After we go through the process a few times of turning it around and saying, 'What do you think? Where do you think you would go to get that?' then they start doing that themselves." Furthermore, Allison has found that, because students have not been directed to check only one source, they will often learn more than simply the answer to one question.

Other teaching strategies that participants perceived as influencing students to take a more self-directed approach to their learning include the following activities: **experiential learning** such as volunteer community contact when students "volunteer" their time to work with a non-profit community agency (Betty Ann); modularized courses which allow students to **work at their own pace** and attend only those classes that seem necessary (Maria); class **discussions** in which students share their own experiences and subsequently make their own decisions (Maria). In reference to an example when her students created their own checklist of appropriate do's and don't's when her students were about to go out on placement, Maria noted that she was surprised at the thoroughness of the students' discussion: "I was totally amazed at the things that they came up with on their own"; furthermore, she emphasized that she was confident the class had "covered" the material thoroughly and there was no need for her to "cover" it.

There is general consensus that students need **discussion and interaction** with each other which in turn provides opportunities for students to practice problem solving. "They cannot just be left with paper" (Maria). Rick noted that "a good

chunk is individual small group stuff" when students work through and discuss topics such as counselling skills and attitudes. The more experience students have and the more secure they feel seem to affect the dynamics of group discussion; Allison reported that she has to work harder at facilitating group discussions before students have had their first placement: "I am running from group to group trying to stimulate them all....What if this happened?" She also noted that she tries to set up group discussions in which students can draw on their own life experiences.

One-on-one consultation is an approach that D'Arcy uses a great deal; he also described his teaching style as inconsistent, however, because he tries to meet the needs of every student: "I have a tendency to worry about every single student. On the other hand, Betty Ann described her approach as casual: "I...don't carry things down to the letter." She called her style a "bag lady" approach. Furthermore, she is careful not to assume that students have had time to cover everything on their own since many have other commitments such as families and jobs.

Lecturing is not a favoured teaching strategy and those who use it do not feel comfortable with the formal lecture. D'Arcy said that he uses a **chatty approach to his lectures**; point form notes are distributed to students so they need not take notes and he encourages dialogue with the class. Others described using **variety in their teaching activities**: ensuring that the lessons are "living experiences" (Betty Ann) that students can relate to and discuss with their families; using real examples and "hands-on experience" (Janice) rather than being the demonstrator; incorporating as much discussion as possible. Betty Ann questioned her skills as a teacher because she

is convinced students do not learn much from her lectures; however, she admitted that what she does do well is **ask questions** and she has had positive feedback from students on this approach. Allison emphasized that she acts as a facilitator or guide rather than "the person who stands up at the front of the class dictating while the students take notes." Because D'Arcy often asks students what they think or because he asks for feedback to his teaching style, he stated that the classes often question why he is asking: "None of our other teachers are like this. Why do you care about what we say? Or why are you asking us? You should be telling us."

Flexibility as a theme and a strategy for facilitating self-directed learning was mentioned by most participants: Maria tries to provide some flexibility by allowing students to select their own due dates for projects or by allowing students to decide when they are ready for placement; Rick stated that there have been some opportunities for students to make choices such as whether to come to class or simply demonstrate to the educator how something has been learned.

Maria defined flexibility in a different way when she stated that "I like to be flexible and give the students as much direction as possible." She perceives herself as a more flexible educator if she **provides students with more direction rather than forcing them to be independent** if they're not ready for this.

Because she wants students "to think futuristically," Betty Ann tries to influence students to think differently; in other words, there is no one answer nor is there only one way to do things. Maria also emphasizes the future with her students; "to-day is not the end; there is more." She wants her students to be excited about

learning new things and to continue learning beyond the program at the college. This approach to learning fits with the notion of developing skills in **critical thinking**. Maria referred to the need for students to be able to think rationally under a variety of pressures and within a variety of circumstances: "I want you to be...resourceful and flexible and...think for yourself."

A more **lenient** approach was referred to by many participants as flexibility; for example, Betty Ann stated that she prefers to "give people a chance" but she called this approach "more lenient than my colleagues." Rick thinks of himself as flexible because he accepts students' explanations for incomplete work; he recognizes that students have other responsibilities outside of school. Maria described herself as "naive" because she listens to student excuses for incomplete work but prefers this trusting approach.

Group projects are a common teaching strategy; one of the reasons participants believe in group work is to help students gain experience working as part of a team. Allison described an example in which a student, whose peer evaluations had indicated that she was not contributing to the group, also experienced some difficulties on placement: "She didn't do well but she understood why....Interestingly enough, working in a group [when she returned from placement], she got very positive feedback from all of the group members....This has been an area of growth."

Furthermore, some of the group projects are intended to **simulate activities** students are likely to encounter in the workplace. Betty Ann described a component of a psychology course for which groups prepare presentations after completing all of

their own field research as "a totally marvellous experience....although students must often go through pain and anguish." The rationale for this project is to give nursing students practice at presenting information and teaching in front of a crowd. Allison described a group project for an administration course that she teaches in which the students take on specific roles such as chairperson or secretary and design a proposal for funding according to the requirements of a specific funding agency; students are required to do all of their own research to determine the formats and requirements for different funding agencies. A one-hour course taught by Allison is described as "one hour in class and five hours of unsupervised study."

All participants indicated that teaching strategies and goals vary **depending on the course**, the number of hours of the course, and the level of the students. Year 1 students are considered more needy of support from the educator than Year 2 students; for example, Allison believes they need to be reminded about assignments, tests, acceptable format of assignments and a review of skills "one would assume students have when they come to college." D'Arcy described his approach with third-year courses as "wide open" because the students have more experience and because the courses are mostly practical. D'Arcy reported that, "As long as the course objectives are covered, whatever goes for the day, goes....Let's take a look at how students want to cover them." This flexibility is due to the nature of the courses, he believes; the students are practicing sign language interpretation which is videotaped and subsequently analyzed.

The size of a class was cited as influencing student commitment because it is

not uncommon for someone to be absent or to fail to do a fair share of the group work: "I don't think self-directed learning works as well with a class of 45 [because there is often less commitment to the group]" (Janice).

Formative evaluations are used by some participants but on a less formal basis or only if the educator perceives some problems in the class. For example, if Allison notices that students are not doing well on tests and assignments, she will invite students to write down their concerns "so that changes can be made if necessary." If she is trying something for the first time in a class, Betty Ann will invite verbal feedback from her students before they leave that particular class. However, she stressed that she is not comfortable asking for criticism; rather, she will ask students if they would like to see more of something or if they would like to make any changes. Furthermore, students can often change course or project objectives on an informal basis if the educator is working with small groups of students. Betty Ann referred to clinical groups of 10 students each: "They'll often give me feedback as to what they would like."

Students may volunteer suggestions for change: "I've had students raise their hands and say, 'You know what I think might work better,'...and at first you're kind of embarrassed but then...we change the rules" (D'Arcy). Furthermore, students can often change course or project objectives on an informal basis if the educator is working with small groups of students. Betty Ann referred to clinical groups of 10 students each: "They'll often give me feedback as to what they would like." D'Arcy expressed his enthusiasm for this kind of participation and his incredulity that he does

not come up with these ideas himself because he is the educator. Furthermore, he perceives this kind of student initiative as self-directed learning "because the student knows what they need and how to get it."

Students can teach. It was acknowledged as common practice to use students' experiences as part of the lessons or to supplement the lessons. Not only are students encouraged to participate and share their experiences, but in some cases, educators have asked students to teach portions of a lesson; this teaching activity might be set up as a formal project or might be a fairly spontaneous activity. For example, D'Arcy teaches a third-year course called Language Skills for Interpreters; students are given 15-20 minutes to teach the class any aspect of language and D'Arcy assists them with designing a lesson plan. Rick summarized his approach when teaching a class that has already been out on placement and students have that experience to draw upon:

> I'm always quite aware of the fact that they've had a fair bit of experience....so I try to make sure that we use that experience....[often] the things that I want to teach, somebody in the class already knows...so I may as well use that.

In the Dental Assistant Program, graduates will often return to upgrade their skills in order to increase their chances of getting into the Dental Hygiene Program. Maria used to be concerned that these extra students cause extra work for educators but she has found that, on the contrary, they are of some assistance:

> With this paradigm shift and with all these independent studies, [we are seeing

> that we really need peer tutoring]. So these senior students...do a lot of that for us. I will set up sessions....[For example, a student with five years experience] has taken students that just cannot comprehend things, walked them into her office where she works part-time, shown them visually everything and the students say--oh, that's what that was. We [also] have them (returning students) do special presentations.

The variety of backgrounds which students have can also be used as part of a lesson and D'Arcy has asked some of these students to teach a class. For example, he has asked a student who used to be a nurse to teach a class on topics such as pregnancy and sexually transmitted diseases; another student who had a degree in psychoanalysis was asked to teach a class on her area of expertise and "she was much better than what I could do."

Learning packages. Learning packages, which have been an integral part of the nursing programs since 1988, are given to students the first day of classes in order to facilitate student self-direction and independence. The packages consist of objectives, case studies, learning activities and resources which the students can work on in groups prior to a class relevant to aspects of the packages. Betty Ann stated that she believes the faculty at the City Campus have more success using the study guides as they were intended in that students do all of their own research in advance and educators are available only as a resource. She also cited the faculty strike in 1990 as evidence that the learning packages are effective in facilitating self-directed learning. During this four-week period, nursing students got together to work

through the learning packages: "First- and second-year students got together and shared their package of information...and when we came back from strike, a lot of the topics, they had already worked through" (Betty Ann).

Evaluation and Grades. Although in some cases the educators welcome their students' input in terms of their own evaluation, each educator maintains control of the final evaluation. "Feedback is the teacher's responsibility" (Betty Ann). Both Rick and Janice referred to student self-evaluation as an opportunity for the students to reflect on their experiences and gain some insight into their own learning. In fact, Rick stressed that "they have a lot more insight into their own minds" and that he uses the self-evaluation approach as an opportunity for students to identify goals and areas of weakness. Janice noted that students have a column on their clinical evaluation form for self-evaluation; if a student's evaluation is opposite to that of the hospital supervisors and teachers, it is felt that the student needs help in gaining some insight into recognizing particular problems, strengths and weaknesses. Self-evaluation is used most often in practical components of the courses such as lab work and clinical practice.

Journals were established as a new system of reflection and evaluation by the students in the Dental Assistant Program. Student involvement in the placement evaluation was one method to help reduce Maria's workload. Students are asked to record feelings, thoughts, activities and observations during their placements. These thoughts are subsequently used during a meeting with the educator when the grade for the placement is negotiated; the students bring their journals to a meeting with the

educator and, together, they open the sealed envelope which contains the placement evaluation: "We...read together what the employer said and from that I...have [the students] help me to establish whether they passed or not." Furthermore, the students' comments also are used to assist the faculty in selecting dental offices for future placement.

Betty Ann stressed that students are "very much involved in their own evaluation of the situation" when they are in a clinical situation. Although she sees evaluation as the educator's responsibility, it is based on information that students provide in their journals rather than teacher perception of the situation. Her students are encouraged "to write as much as possible" in their journals because, in a clinical situation, the dynamics change once the educator enters the room and therefore the educator is not in a position to evaluate.

Group work often provides opportunities for self-evaluation and peer evaluation; Allison reported that she uses these evaluations as a check: "I check other people's comments with theirs." However, Allison tries to keep the evaluations objective by providing the criteria such as "Did this person participate during meetings?" Although students add comments to explain their evaluations, Allison summarizes the comments before returning them to the person who has been evaluated: "I'll make sure that I don't hurt anyone's feelings."

Participants differed in their uses of the students' self-evaluations: Some do not average in student evaluations with the final grade because it might be unrealistic. For example, because of the "unhealthy competition" in the Dental Assistant

Program, Maria finds self-evaluation difficult because students might be too easy on themselves. The nursing educators see self- and peer evaluations as guides to help the students. Sometimes the grade is used "if it is realistic." On the other hand, Allison sets aside 10% of the final grade for student self-evaluations or for whatever amount the students have indicated they wish to be responsible.

Evaluation is perceived as "an institutional thing" by D'Arcy in that evaluation is used to both check on student progress and "keep them in line." Although he has not used student self-evaluation, he thought this concept was worthy of further exploration. The key informant, Barbara, referred to the course information sheet as a contract with the students; objectives and evaluation methods should be open for discussion at the beginning of the course. Maria reported that she uses it in a contractual manner; her students are required to sign an outline of the grading policy to ensure they cannot claim at the end of the term that they were unaware of the course requirements.

Feedback from the educator was emphasized as an important aspect of a student's learning. Educator availability was stressed by D'Arcy in terms of providing students with feedback: "I need to be there, to see how they do, to monitor [them] and give them some...feedback to let them know how they are doing." D'Arcy also emphasized the importance of this feedback coming from "someone who knows the process." Because lab technicians are not familiar with different theories of sign language, he feels they cannot provide adequate feedback: "Their focus is language." Allison refers to a "check-in time" when students come in for feedback

and in-process evaluation as they are working on group projects; in this way, students can build the next portion of the project with confidence that they are working correctly: "They are getting feedback constantly...so that students don't do a huge amount of work that is on the wrong track."

Evaluation strategies and objectives depend on the context; for example, because Betty Ann tries to get students out into the community as much as possible, she relies on their journals for evaluation of this component of the course. In labs, Maria noted that she relies on "an Oreo cookie method" of evaluation: students receive negative criticism sandwiched between positive comments because more time is spent in labs encouraging students.

Competition for grades was a recurring theme for Maria with reference to the dental assistant and hygiene students and this "edge of competition among students is uncomfortable at times." Students have been known to steal notes, make threats or sabotage each other's work. The college has recently moved to a four-point grading system rather than a grade point average. Maria acknowledges that this has reduced some tension but she feels it does not accurately reflect the students' abilities; for example, a student with 79.7% looks equal to one with 92%. Although faculty feel that the grade represents a student's chances for success in moving from the Dental Assistant Program into the Dental Hygiene Program, a higher GPA does not increase a student's chances for employment. This program had tried contract grading once but Maria explained that it was not successful because of the competitive edge.

Self-evaluation tends to be resisted by those students who do not want to be

involved in their own learning, according to Janice. The common response to self-evaluation has been, "Well, you're the teacher; you should be doing this."

Allison stated that there is some flexibility regarding grading activities and she invites student input regarding the evaluation process at the beginning of a course: "This is open for discussion....but for the most part they go with what is set." Furthermore, Allison indicated that, if students asked for all marks to be determined [by self- and peer evaluation], I would go for that."

Instructional and Professional Development

Most of the theory-based background for participants that seemed to influence their practice of teaching was their professional experience and professional education. Furthermore, although the paradigm shift represented a new or different approach to practice, preparation and professional development for the paradigm shift and self-directed learning was reported as minimal; the key informant, Barbara, described the teacher preparation for the academic paradigm shift as "woefully inadequate."

Most participants cited teaching experience and an increase in self-confidence as the prime influences in their approaches to teaching. Furthermore, all described themselves as "rigid" or "tough" in their early teaching years but more relaxed or less controlling as they gained experience teaching. For example, Maria used to believe that students needed to be directed: "They needed you to take them step by step." However, today she perceives students as quite capable, "if given the opportunity," to

be prepared before class and she also welcomes student input. She emphasized that students must take ownership of their own education: "The students needed to realize and I needed to learn too that I am not liable for how they do." Allison corroborated this beginning belief in educator responsibility for student success or failure: "I thought my role was to make sure everyone passed." The result was that she found herself spending more time with weak students and ignoring those students "who were doing what they needed to do."

Rick summarized this change: "I've just gotten better at it....I clued in that all the things I learned about working with people with disabilities, really [apply] as much here....I just learned how to do it in an educational setting."

When asked what he meant by getting better at teaching, Rick translated "better" as "more efficient, more assertive, and better organized"; furthermore, he also noted that his perspective has changed in that he now has a perspective of the whole process. He sees students as individuals and realizes that not all are good at being students and, therefore, these students require a more flexible or different approach.

Betty Ann emphasized the joy she is able to derive from the teaching process now that she is not as concerned about being a tough teacher: "I think I was more of a hotshot back then...now I really just enjoy the process....I really enjoy the students as they find the answer....I think I'm freer." However, she realizes that she "returns to the basics" if she is teaching a new course: objectives are set up and she "sticks close to the books to ensure everything is covered." However, the next time the

course is taught, Betty Ann is more comfortable and more apt to use her judgement to decide what students can learn on their own: "Then I focus on what I'm interested in....As I get more comfortable with [a course], then I can break down my own inhibitions." Although Betty Ann often lacks confidence because she is concerned that she may not know enough, she also now realizes that a teacher does not have to know everything to be effective: "I don't think I know everything...but at one time I really thought that that's what a teacher had to do....I prepare if I have enough time by reading a fair bit of information but I don't always get a chance to read everything that I'd like to."

As participants have gained more confidence, they found that they were becoming more comfortable inviting student feedback and could learn from their students. They found that they can learn more than simply how to teach but also aspects of the discipline being taught.

All participants have had experience working in the field they are teaching and the nature of the relationships they had with patients and clients has had an influence on how they approach the teaching process. Betty Ann referred to patients in the clinical practice who have been part of her learning. Rick cited his 10 years of experience working in the field of developmental disabilities as having influenced his perspective of teaching because, when he worked in the field, "there was a fairly strong movement....It allowed people to make choices and to kind of be responsible for themselves and be sort of on an equal footing [with the counsellor] rather than the 'I'm up here; you're down there' sort of approach." When he started teaching, Rick

realized that much of what he learned about working with people with disabilities could be applied to the educational setting. Maria had a similar perspective because of her experiences as a dental hygienist; furthermore, as an hygienist she was also teaching in schools.

Participants cited the importance of drawing on material from their professional experience as part of their teaching practice. "I draw constantly on things that have happened to me" (Allison). Allison finds recent work experience valuable which affords her the ability to determine, based on "first-hand experience," whether or not a technique that she is teaching her students to use with clients will be successful.

Because drawing on experience and knowledge in the field is important to their practice, some will return to the field of practice if they "have lost touch." Betty Ann stated that she will take some courses and do some practical work if she starts teaching a course in an area in which she does not feel familiar. "In the fields of medicine, sciences and psychology, one never stops investigating because so much is being discovered all the time" (Betty Ann).

Professional training and courses were also perceived as being of some influence in participants' teaching practice. For example, Rick cited his courses in social work as having "crystallized" his philosophy of education by putting it into perspective. He felt that, in his college program, he learned to allow clients to make choices and be responsible for themselves. There was also the recognition that participants are most comfortable when teaching those courses which they enjoyed

studying as students and currently enjoy studying as practitioners; for example, Betty Ann reported that she is currently teaching psychiatric nursing and it is where she feels most competent and comfortable: "It's what I like to study, to know what's new." Furthermore, nurse educators usually had a teaching and learning component in their courses although Janice described the format of one of her courses as having left an imprint rather than the content of the teaching and learning courses. She remembered that, as part of the Nursing Education course, she was taught "proper techniques of teaching" but she recalled wondering why she never saw these techniques modelled. However, she described a total patient care workshop for which the nursing students were responsible for planning, organizing and moderating a conference session to have everyone involved in a patient's problems: physician, physiotherapist, social worker and any other health care workers. "I did similar things for many years with the students...in getting everyone involved" (Janice).

This theme was echoed by the other participants as well. Maria stated that she teaches according to the type of classes that she enjoyed as a student; for example, she uses analogies and links new material with something students are familiar.

Recent education courses were cited as being of some influence in participants' practice, and again, often the format of the course was as important as the content. An M.Ed. course which D'Arcy took was described as self-directed and this course, because of its format, served as a model for his own practice: "We had to do a lot on our own and I think it gave me ideas on how to let students do that...and not feel that they are tackling Mount Everest. Students need to know that goals are

attainable."

Recent status as a learner was believed to have some impact as well. Allison believed that her recent completion of a diploma program at night school allowed her to more easily empathize with the students' perspective: "I can empathize with deadlines and the amount of work."

An inservice training program that is offered within the college system, Orientation to College Teaching, is one in which all participants have participated or are currently participating. This program runs for three consecutive summers for one week each session. The key informant, Barbara, informed me that when she first came to the college in the 70s, there were far more staff development activities because the system had more money. The Orientation to College Teaching Program has been well received and participants indicated that they gained more confidence and felt encouraged to try new teaching techniques: "I came back so fired up, just so enthusiastic and with all these new ideas" (D'Arcy); " [The program] has given me the confidence because I realized I was doing the right thing when I listened to what other people were doing. I realized that I am doing a good job here" (Allison). Participants indicated that the program was good for them because it gave them the confidence to move away from more traditional approaches to teaching. On the other hand, Betty Ann reflected that, although she enjoyed the teacher training program and learned a great deal, "I don't always apply what I've learned." None of the participants described the program as offering more than teaching techniques and tips such as educational theory or adult education theory. However, the format of the

program has had some impact; participants were grouped together with the same group for all three sessions and came to rely on each other and learn from each other. Furthermore, all agreed that it was good to realize that they could have fun while learning.

Rick cited his home environment, even before his college education, as very instrumental in shaping his approach to teaching because members of his family were encouraged to figure out what they wanted to do and make their own choices.

Institutional Influences and Constraints

The college structure is set up to involve the employers of past and future graduates. For example, all post-secondary programs have advisory committees which consist of professionals working in the field and potential employers. There was general agreement among the participants that they have a responsibility to meet the needs of the employers. "The college has a responsibility to the employers and [our program] is able to meet that responsibility" (Allison). In this particular case, it was important to the educator that the department have consistent support from the program chair.

Although in most cases the educators would like to see the students involved in planning the curriculum, there seem to be many reasons why participants believed this is not possible. One of the main reasons cited was the need to meet the employers' needs and perspective of what is required. One educator stated that he believes the curriculum should be designed "by the consumers, but the field hasn't realized that

yet" (D'Arcy). Another reason cited was that course outlines are developed well before the term begins in order to ensure each course meets guidelines as established by an accreditation process: "Because this is an accredited program, it's scrutinized a lot" (Maria). Janice cited lack of time as one of the main reasons that students cannot be involved in designing curricula: "We (the faculty) hardly have time to do that, to revise [curriculum]. Furthermore, although Maria would like to see student involvement in curriculum design, she is convinced that this would be impossible because of the technical nature of the dental assistant and hygiene program. D'Arcy echoed this sentiment but in reference to teaching a skill or an art.

Participants referred to student input in the curriculum as having been derived primarily from summative evaluations; course evaluations are conducted formally at the end of each term and students' suggestions are incorporated during the May/June period when curriculum is being reviewed and redesigned. Furthermore, students are represented on advisory committees and curriculum audit committees, both of which have input in a curriculum review. Rick stated that changes are made every year based on course evaluations; the most frequent aspect of the course on which they receive suggestions for change is methods of evaluation.

Furthermore, changes are more easily and more likely to be made if there are fewer educators teaching the same course. For example, Betty Ann has taught courses for which it has been impossible to get everyone to agree on the changes whereas she is currently teaching two courses with one other person "so there has been more opportunity to make changes." Janice believes that students have some

good ideas but their ideas are sometimes not realistic and therefore cannot be incorporated. D'Arcy stated that he sees his responsibility as making every effort to incorporate student suggestions: "Students know what they need or what they think they need and we kind of know what they need to make it a profession...somewhere I have to put these two together."

Advisors and supervisors were referred to in terms of the influences they wield in participants' approaches in the classroom. Janice referred to a curriculum person on staff who encourages self-directed learning. D'Arcy mentioned that, although the chair of his department agrees that educators should be flexible and try to meet the needs of a variety of students, he is concerned that too much flexibility will cause "teacher burnout"; D'Arcy interprets this to mean that his chair would like to see him be "more rigid." Allison referred to past supervisors who had a negative impact on her teaching because they insisted that "things be done one way only."

Time constraints were often mentioned as presenting challenges to the overall quality of education. However, one educator perceived these challenges as opportunities for innovation. She believed that more time usually translated into more and longer lectures whereas "fewer hours often translate into innovative ideas to get the students to do the work" (Janice). D'Arcy corroborated this notion: "You need to be more creative and more flexible." However, he believes this lack of time to adapt has been compounded by large class sizes. Because of time constraints and faculty workload, there was also concern that educators might abuse the more self-directed approach by not accepting responsibility: "Teachers might take the easy road

and send students off to do things by themselves [rather than be] bothered" (Rick).

Although participants referred to the academic paradigm shift as creating an awareness of the need to implement new, creative approaches to learning, they felt that a new or creative approach has not been accomplished; in fact, there were several references to the college policy as "paradigm shiftless." Furthermore, although the administrative intention that began with the current college president was one of involvement and participation, the implementation of the paradigm shift was a departure from this stance; neither students nor faculty were involved in the planning and design. "The students were not involved in the decision making; they were involved in the decision-announcement because they are members of the board and members of council. They were informed as were teachers" (Barbara).
However, participants see the paradigm shift as "plausible" (Maria), but time constraints were cited as one of the major reasons that educators have had difficulty embracing and implementing student-centred learning across the curriculum. For example, there was insufficient time to educate faculty on the new philosophy: "There weren't any sessions held to help faculty adjust to the paradigm shift" (Janice). Furthermore, there was insufficient time to adjust curricula and lesson plans to accommodate fewer classroom hours. Betty Ann felt that she needed more time to gather information and resources such as videos so that students could work independently.

Workload demands and lack of "down time" was often referred to as a source of frustration. Maria referred to the lack of time to be reflective or creative and that

she often is forced to redesign courses to alleviate her own workload. The size of her classes also has an impact on attempts to try less traditional approaches: "It is sometimes more frustrating than it's worth." Furthermore, Barbara (key informant) noted that because faculty now have fewer contact hours with their redesigned courses, their assignments have been increased since the workload formula is based on the number of hours an educator is in front of a class: "You can't effect a change unless there is time for reflection [and] time for learning." The impact of the paradigm shift was summarized by Rick: "There is insufficient time and energy to do everything that educators would like to do."

The paradigm shift was cited as the source of increased stress for students as well; Betty Ann has noted that, because students have not been committed to as many timetabled hours, they have taken on increased extracurricular responsibilities such as part-time jobs or increased hours. This has been noticed by Janice as well: "They probably aren't as involved as we would like." There is also less time for educators to develop a relationship with students and the decrease in student-teacher contact was cited as the reason. Financial constraints were acknowledged as a source of some influence and, although the paradigm shift is blamed for "bunching everything up" (Rick), it is difficult to separate the two. Participants believe that the paradigm shift was primarily a financial decision.

Student Services and extra resources are seen as "an important part of the educational process in an institution" (D'Arcy) but there was concern that many students were unaware of what was available or how to access it (D'Arcy; Allison).

Furthermore, Allison has "mixed feelings" about the college library because many students do not research beyond the library.

The need for adequate resources was echoed by all respondents as the key to successful implementation of college-wide self-directed learning. Interactional technology was cited by Rick as having tremendous potential. Allison referred to the necessity of having supports in place to assist those students who are experiencing difficulty. Access to resources and facilities, as well as an environment where self-directed learning is acceptable, are seen by D'Arcy as the college's responsibility. However, budget constraints have had an impact on resources available to the students.

The use of student study groups was cited as a means of facilitating more student self-direction, but Betty Ann believes that the college is responsible for ensuring rooms are available for students to get together. The college had tried to create a timetable for the whole college so that rooms were set aside at the same time as students were timetabled to be free of classes but engaged in self-directed activities; since space is at a premium at the college, there was a problem setting up rooms for the students to meet. According to the Dean of Academic Studies, the timetabling committee ran out of rooms before the timetable was completed.

Further to space constraints, participants cited the small size of classrooms as creating other constraints. For example, in order to facilitate group work during class time, Allison described the necessity of "redesigning classrooms" and that, even then, students often are required to sit on the floor; furthermore, groups cannot work

privately because the classrooms are small.

Although he acknowledged that a college's mission statement usually gets lost in the internal structure of the college, D'Arcy believes that students have a responsibility to know the mission statement so they can decide if they have the same philosophy; if not, "they have the option of going elsewhere." Barbara (key informant) referred to a list of values which are reflected in the College mission statement, the first of which states: "We believe that **students** (bold emphasis in original) are our prime focus." She believes that this statement is in fact "an overall reflection of the college--that we really do try very hard to accommodate student needs."

Because the college is operated on a time-based system with clear beginnings and ends of terms and school years, there is some doubt that independent, self-directed programs can replace traditional methods of evaluation and traditional ideas of how learning takes place. The key informant, Barbara, cited the system as a major block to implementing a learner-centred approach. She stated that she believes there are no truly self-directed programs within the college but that there are some programs in which self-directed activity is being implemented at the senior level. The Dental Hygiene program uses "a competency-based modular form" (Maria) but because the college system imposes deadlines, the students cannot use a self-paced approach in their learning.

College educators' teaching assignment is based on a workload formula which is based on the tradition of grouped classroom instruction and the number of students

with whom educators have contact during a timetabled class. This formula is seen as a constraint to any approach which does not fit the traditional mold: "I don't see this as an administrative problem only; I see that the union has to address this too....Is the only thing we do...is to 'slug it out in the classroom?'" (Barbara) A number of other teaching activities such as group and individual consultation or working with modules are not recognized and cannot be accommodated in the faculty contract as such.

Betty Ann referred to the limitations of a workload formula and student timetable that specifies certain days as "contact days" and others as non-contact days. For example, her students have contact with faculty and clinical supervisors for three days, one of which is a day of classes and the other two are clinical days; the remaining two days of the week are classified as non-contact days. Although students may need to contact an educator for consultation during one of their "non-contact days," no adjustments have been made to the workload formula to facilitate faculty availability: "We've not made any adjustments in terms of [availability]. It's a hit and miss kind of thing, if you're at your desk when they want to talk to you, you do that; but it's not a sought-after kind of thing." Furthermore, because of the open-concept of the office area, Betty Ann finds it difficult to work at her desk and so she usually works at home and, therefore, is not often at her desk and available for student drop-ins.

The Students

Attitudes and Values Toward Learning

Education and career goals. The student participants emphasized that they enjoy learning and that they chose to attend college in order to learn. However, it is also evident that their learning goals are tied to career goals. For example, Kristin compared herself to those students who skip classes at college because they have the freedom to do so: "I am here to learn; why should I be skipping? Why do I need a reason *not* to be here?" Theresa referred to her love of learning as "like a sponge, [wanting] to learn more and more information." Yet, two of the participants believed that their ability to focus on their learning was the realization of their long-term goals. "Since I was about seven or eight [years old]...[a course in sign language] is what I was interested in" (Kate). "This course has been a goal for me; this is my dream, my career" (Kristin). In fact, all of the student participants have very strong career goals.

Nevertheless, although student participants enjoy learning, two of them expressed their eagerness to be finished with school: "I have had enough of school already" (Charlotte). Because Suzanne feels "like I've been in [school] forever," she intends to "fast-track through [the nursing program]"; she stated that her intention is to complete a three-year program in two and a half years by not taking any semesters off.

The majority (six) of the student participants explicitly stated their intentions to

continue studying and/or learning after graduating from their current programs of study. Three of the participants plan to attend university. Although Dana switched from a degree program in science to pursue the dental hygiene field, she believes that she will return to university: "I don't think that my learning years are over. I have a paediatrician in the back of my head....I am sure I am not done." The two other participants who intend to study at a university (Wendy and Suzanne) expect to do this either on a part-time basis or via correspondence. Since the nursing program at the college has an articulation agreement with a local university, Wendy will transfer her college credits so that she will be required to complete only two more years to qualify for a university degree.

Once Charlotte has completed the Developmental Service Worker Program, she, too, intends to apply her credits toward another program, namely a diploma in Early Childhood Education which will require that she complete one further year of study at the college. Furthermore, although Charlotte is eager to finish school, she mentioned that she is also interested in getting a teaching certificate at some point: "It interests me because I know that I would like to do it but I don't want to be in school....that long. But then again, you never know."

Two of the participants--Theresa and Kristin--referred to future studies in terms of specializing in their respective fields or learning more about specific aspects of their professions. For example, Kristin intends to join professional associations and attend seminars and short-term courses so that she can pursue forensic dentistry further as well as orthodontics. However, in both cases, this option of upgrading or

specializing was chosen because the participants believed that a break from formal schooling was necessary ("I definitely need a vacation and I think it will be a while before I take a serious course" Kristin) or because personal circumstances warranted occasional studies rather than several more years of schooling.

"Everyone says you give up nine months of your life for your goal" (Kristin). The career goal which Kristin had set for herself was to work in a dental practice with children. In fact, five of the student participants' goals involved working with, caring for or teaching children. Suzanne mentioned that her nursing background will allow her the option of teaching adults or children.

Student participants all described themselves as goal oriented and focussed. In fact, Charlotte and Kate believe that many of their peers are not self-directed because they lack goals and are not planning for a future: "I am a minority...people are not sure of their goals, not as interested, [and]...don't seem to focus as much" (Charlotte).

Roles and Responsibilities in the Teaching/Learning Process

Teaching. Student participants believe that a background in education as well as experience in teaching are essential characteristics of an effective teacher. Kate stated that, from her observations, simply knowing the material is not the same as having to teach it; for example, an educator with experience understands different learning styles and can adjust to the needs of the class: "[Those without experience] just get up there and talk." Wendy mirrored this sentiment and suggested that a good

teacher must have a variety of teaching techniques: "Unless you can relate...to a learner, I don't think it is any good." An educator's ability to relate to more than one learning style was emphasized: "It is important for [educators] to know that there is more than one learning style and you are going to have to be able to reach the different levels and give everyone an equal chance" (Dana). Suzanne identified the nursing educators as skilled teachers because they all have a background in health education: "It plays a big role in knowing how to portray the information and how to share the information...'This is how you can learn.'"

Furthermore, the educator was deemed also to be responsible for meeting the needs of the class interests. For example, Theresa stated that the educator should "find out what the interests of the group are and plan the curriculum around the interests as much as they can." However, although participants believe an educator should be able to meet a variety of learning styles and a variety of interests, there was general agreement that students have a responsibility to ensure their educator is aware of their needs: "The teacher is not psychic; students must keep teachers informed of their difficulties" (Kristin).

With reference to effective teaching, a related theme was an educator's willingness and ability to share experiences with students. For example, student participants described effective teaching as sharing, collaborating, guiding and helping; on the other hand, they described ineffective teaching styles as directive and dictatorial. Suzanne emphasized that the educator should be at the same level as the students: "Someone is sharing their [sic] knowledge and they shouldn't be put on this

high pedestal....because they were at that level before....It is not demanding [that we learn]; it is a way of sharing....experiences." Furthermore, Charlotte stressed that "Students want to hear [about] their [teachers'] experiences." In addition, participants mentioned the importance of reciprocity of the sharing process: "There was a lot of interacting with us....[the educator] let us share our opinions" (Theresa); and "students can also share experiences and their experiences with their patients" (Suzanne). However, it was stressed that, if students are sharing opinions, the educator "must be open-minded and not discriminate against things they don't agree with" (Charlotte).

Students often see their teachers as co-learners. For example, Wendy believes that educators and clinical supervisors learn from students: "The clinical teacher told the students that she learned a lot from them." Since the nursing students are gaining experience in a clinical setting, they have an opportunity to work directly with patients; these experiences are shared in the classroom and, according to Suzanne, everyone benefits: "People can learn from me and my way with people." Again, the theme of equality was repeated: "I like that, her valuing our opinion. She treated us more like an equal and she was learning from us at the same time" (Suzanne). Rather than perceiving their educators as experts, student participants valued their educators as peers who have more experience than they do but, at the same time, are respectful of the students and what they have to offer.

The educator's responsibility was also described as guiding or helping students. An educator, according to Kristin, will "help you from going off in the

wrong direction or going too far ahead...to keep you at a good pace, to help focus you where you are going...[and] help students do something they want to do." Dana also referred to the educator's role as a guide in order to keep students "on track"; this perception is based on her tendencies to be easily distracted: "I tend to branch off in different directions."

Most of the student participants were in agreement that educators should not be directive. The directive role was described as "demanding" the students to learn. Dana prefers that educators advise rather than "dictate to you....[in order] to hear their own words back." However, Kristin expressed frustration that much of her learning in first term was done on her own because her teachers did not give her all the information she needed: "Why frustrate us back then when we could have used this information?"

Because student participants perceive their educators as co-learners, it is not surprising that they do not perceive their educators as experts. Kristin referred to an educator as a mentor rather than an expert and Dana suggested that educators are people with experience: "I value their opinion but I like to think there is more." While they recognize that educators have more experience and education than their students, all of the participants agreed that they need not be experts and, in fact, educators should not act as if they are experts because "they are no smarter" (Charlotte). It is preferable that educators admit when they do not know something and either let the class know they will try to find the information (Theresa) or direct students where to find the information (Wendy). In fact, some students stated that

educators should continue their own education in the discipline they are teaching: "I don't know one field that has been the same for long; therefore, teachers have to keep going to school" (Kristin).

However, although Kristin does not perceive educators as experts ("You think they know everything, but they don't"), she expressed a conflicting opinion in her journal as she was recording her frustrations while preparing for final exams: "Doing my homework is frustrating. I'm teaching myself material that someone with knowledge should be teaching."

Learning. "People learn best if they're involved [in their learning]" (Theresa). This sentiment was echoed by all of the student participants; if students are involved in their learning, they take the opportunity to embrace interaction in the classroom as well as opportunities to apply their learning outside the classroom. "Involvement" from the students' perspective means that the learner is actively committed to learning pursuits as opposed to passively accepting only what is offered in the classroom. Wendy commented that she is more passive in those courses that do not interest her whereas, because nursing is more interesting to her, she is more aggressive in her learning.

Students must take the responsibility of actively doing their own learning on their own; for example, Suzanne stated that students must do their own research because "teachers tell us only what is important for the test but not everything that is important for the clinical area. There is stuff we have to learn on our own and do our own research for." Moreover, Kate emphasized that "if it is something that I

really want to do, I'll find out what avenues to take." She echoed the assumption that the student must take the responsibility for learning in terms of integrating and cross-referencing courses: "This is up to the students--to take what they have been taught and to apply it to their program or their course. For example, a sociology teacher teaching the Sign Language Program may know a lot about sociology but not the sign language part. It is up to the students to take what they have learned and apply it."

Wendy reported that, in the first year of college, teachers reminded students that they now have to start thinking for themselves; however, it is clear that teachers expect to direct this learning: "You've got to learn this and you've got to do this on your own time." Furthermore, Kristin expressed frustration at the amount of learning she was expected to do on her own: "Not everyone can learn on their own." However, she was able to find a system of learning that worked for her: "My best friend and I were able to do all the homework and what we didn't understand we clarified with each other and if we still didn't know anything, then we went to the teacher." Nevertheless, she believes that "this is crazy because teachers have the experience and students need to know from them."

Participants were asked to define learning. The terms of reference ranged from "understanding" to "change." Charlotte and Dana stated that they believe one has learned when there is an understanding so that the learner can use the information: "It is not just processing information" (Dana). Kate and Wendy agreed that learning takes place when there is an opportunity for application.

Both Theresa and Kristin referred to "new knowledge" as well as a "new

perspective" as descriptions of learning. For example, Theresa believes that students feel they have accomplished something in a class if "they walk away thinking, 'I didn't know that before.'" Furthermore, she believes that learning encompasses a new attitude, "changing your way of looking at something." Kristin clarified the term "new knowledge" as different from "older knowledge" and she believes that this is where schools have an advantage; "There [are] other views that you have to learn about; you have to broaden your horizons."

There was general agreement that learning was not equivalent to memorization. For example, after memorizing material in order to write a test, Charlotte noticed that "when it (the test) is done...[what] I learned is gone too."

Although student participants believe that teachers are responsible for meeting student needs, all agreed that students must accept the bulk of the responsibility for their own learning. They believe that the students must participate and ask questions and "let the teacher know what they are interested in" (Theresa). Charlotte described students who do not ask questions: "They don't want to do the work for themselves so they expect [the teacher] to do it for them, but I don't think most teachers will." Participants believe that students are also responsible for supporting the teaching by doing extra work outside of class: "Teachers don't tell everything" (Suzanne).

Self-directed Learning

In referring to themselves as self-directed learners, students disclosed five underlying assumptions that captured the essence of how they perceive self-directed

learning: initiative, critical thinking, motivation, standards of excellence, and resourcefulness.

The self-directed learner was believed to be a more valuable employee because of initiative since the self-directed learner was seen as one who is easier to train: "You take it upon yourself to learn anything. If I was training and wanted to know something more about C-sections, then I would go to the library and do it on my own and ask questions" (Wendy). Suzanne described herself as self-directed in comparison to other students whom she described as not self-directed because they do not demonstrate initiative when on clinical placement at a hospital: " I am not afraid...to pick up the phone and say '3 North' when other [students] stand there and let it ring... [because they are afraid of] making a mistake or they don't feel comfortable." Furthermore, Suzanne stated that it is important for students to take the initiative to get their own experience: "Being able to go with another RN on the floor and say, 'I want to see you do that,' or 'Can I help you with that?' You don't get the experience if you don't ask."

Although she described the self-directed learner as one with initiative, Dana also referred to critical thinking: "Somebody that can take the initiative and go beyond what they are told. Don't accept what somebody tells you as the truth. Self-direction is...to look at things more deeply." Dana described an example of a lesson in which the educator described how a tooth is formed, a lesson which she referred to as "basic"; then, on her own, Dana found out how each part of that tooth functions and why. This exploration had not been assigned as homework; yet those who

learned more than was taught were more easily able to understand "why things worked the way they did." "You know that you have looked at other views and other things and this is the one that you have decided is the best. You are not just taking someone else's idea of what is best" (Dana). Kate corroborated this notion and referred to the self-directed learner as "open minded" and able to learn from other people.

However, participants emphasized that the self-directed learner must be motivated. Theresa defined self-directed learning as "going out and learning on your own, finding out what the information is that you want on your own [and] motivating yourself to do it." Motivated learners were described by Suzanne as "interested learners" and "eager learners" who "want to get their work done." Dana referred to the motivated, self-directed learner as "an aggressive learner...you have to go out and dig for it." Motivation and tenacity were also the primary characteristics of a self-directed learner for Kate: "Someone who has a desire to learn...and to continue to learn even if obstacles come up; they can direct themselves around them."

The self-directed learner was perceived by all participants as one whose goals are to do more than is required and to do one's best. Again, this perception parallels that which all student participants had of themselves. For example, although Charlotte described this trait as a possible weakness in self-directed learners, she was including herself as one who does more than the minimum requirement: "Maybe we go too far....I have seen other [self-directed learners] who just don't quit." Dana agreed that this can be a potential weakness when she described herself as a self-

directed learner: "[I am] too much of a perfectionist; I don't give myself a break." However, when asked why she thought her educator identified her as a self-directed learner, Charlotte referred to doing her best: "I act like I care. I am here to learn it and I do my best to learn it."

Educators were cited as only one of many resources for a self-directed learner. For instance, other people and other sources were seen as potential learning resources. Furthermore, the college was not seen as the sole provider of learning opportunities. As long as one is "an active participant," Suzanne believes that learning is possible outside school; for example, she described that much learning takes place at the hotel where she works part-time and, as an employee, she always asks questions when on the job. Charlotte stated that the self-directed learner finds ways of learning through other people and other resources. The ability to seek out other resources was described as an advantage for the self-directed learner because the student knows that other views have been gathered and "this is the one that you've decided is the best" (Dana). In other words, according to Dana, the more resources students have used, the more they are able to think for themselves.

Although Kate believes that self-directed learners do not need to go to school to learn, she regards the college as an added resource which will extend the learning: "There is only so far they can go without the educators....There are some people that are self-directed learners but [they don't] have the opportunity or the resources to continue their learning and the colleges can provide that."

Self-directed learning was perceived by most of the student participants as a

process that benefits the students. However, there was also reference to some difficulties or frustrations with the process. For example, Wendy found that she was having difficulty adjusting to the self-directed paradigm as it was being practiced at Ontario College: "It is hard to get away from being hand-fed." This sentiment was parallel to that of Kristin's who stated: "As much as I like being treated like an adult, I wish it was like high school--helped out occasionally whether you needed it or not."

Theresa referred to the pride she feels, knowing that she has accomplished something on her own; however, she is concerned that the student could be learning the wrong information. Nevertheless, she also believed that this problem can be avoided or corrected if the student asks questions.

Because student participants perceive the self-directed learner as motivated and as an over-achiever, some saw this as a disadvantage because other students try to take advantage. Suzanne thought that less motivated students tend to ask the self-directed learner for a lot of feedback and summaries of missed classes. Finally, a potential problem that was perceived by Kate was that the self-directed learners could become so focussed that they are unaware of what is being left behind or of what is happening around them.

Educators and Self-directed Learning

When students referred to educator roles that were supportive of self-directed learning, there were five underlying themes: educator availability, guidance, support, challenge, and encouragement.

In order for the self-directed learner to succeed, student participants believe that it is important for the educator to be available and "open for questions....Most of them will even say, 'Call me at home'" (Wendy). Theresa agreed that the educator should be available for questions, but she felt that a one-hour session each week should be sufficient; this perception was based on her experience with an educator who met with the class once a week, simply to answer questions. However, Suzanne stated that "educators need to be available at the right times in order to be asked questions."

All student participants agreed that, although self-directed learners accept responsibility for their own learning, there are important roles for educators to play to support this learning. Educators were referred to as "guides" who "help students learn what is important" (Suzanne) or "lead students in the right direction" (Kristin). Wendy and Dana emphasized that students need some direction and a "basic start": "[You need] some direction on where you can go to find the answer" (Wendy). An educator was perceived as very important in the self-directed learning process by all student participants, but always to support rather than to control the learning. Theresa perceived the educator as one who "guides things along as a type of resource person." Guidelines were a very important issue to Kristin who believes that an educator's role is to provide students with a set of guidelines from which students "have the option" to extend their learning: "You need someone else's input before you can start learning." Furthermore, Kate stated that educators are important to help the self-directed learner grow and learn more: "There is only so far they can go

without the educators."

Few student participants referred to educators as explicitly influencing them to be more self-directed; nevertheless, Theresa mentioned that educators can help a student be more self-directed "by sending you home to research things." Furthermore, Dana referred to the educator of a self-directed learner as one who will challenge students: "Someone who can...be there if you have questions and say, 'Have you tried looking at it this way'...but allow you to expand." However, Dana believes there are few educators who are interested in allowing this kind of expansion: "They like to dictate to you and when you answer them on a test...they want to hear their own words back." One particular example was cited which countered this notion; Dana described an educator who treated the students more like equals and, in fact, "She didn't want to hear her own words back."

On the whole, student participants concluded that educators value self-directed learners. Wendy portrayed an educator who encouraged her to use her spare time when on clinical placement: "My clinical teacher said, 'I see you want to learn; that is a good quality; use that. If there is something that you want to see and you have the time, go see it...'. They value the ones that are self-directed learning on their own, and also showing initiative." Kate felt that self-directed learners "encourage" educators because "they want what the educator has to give." Charlotte agreed with this notion and described the situation as "a high" for the educator to have students who are interested.

Self-directed learners were also perceived as presenting a challenge to an

educator. Dana believes that many educators are intimidated by self-directed learners: "I think it forces them to take a look at themselves." Another challenge cited by Theresa was that educators have to think of more questions when working with self-directed learners. However, she also believes that an educator has less work to do when working with self-directed learners; in fact, Theresa thought that an educator "would probably think it is a relief...if they knew that they didn't have to do all the work for us, which is what some of them do--they do the work for us....They could be doing less work and having us plan things out on our own."

Strategies for Learning

Self-directed learning strategies.

When describing their style of learning as self-directed, all student participants referred to their independence and self-discipline. For example, Suzanne described herself as self-directed and as one who does not need to lean on others: "I have to give myself my own discipline." Self-discipline coupled with initiative were recurring themes among participants' portraits of themselves as self-directed learners; Kristin stated that "I will go ahead and do what I want to do without anyone making me or telling me that I have to do this." Wendy emphasized that she seeks out her own learning and takes the initiative to get things done: "I am always looking for things to do. I take the initiative on my own...and do it on my own. I ask questions...'Why is this the way it is?'....I am not one to hang around and be told what to do. I am not waiting for my clinical instructor to say, 'You can do this and that,' it is just done." In fact, Dana was adamant about her

preference to have the freedom to learn on her own: "I hate somebody telling me what to do and that you have to do it this way and there is no other way." In her journal, Dana emphasized her independence: "I work out my problems myself."

Although student participants described themselves as self-directed learners, two of them maintained contradictory feelings about their independence as learners. Wendy considered herself a beginner and stated that she is not sure she likes self-directed learning: "I want to be independent but I don't want to be independent....I still want the teacher to be there but not be there--be there if I need them but not interfering. I don't like it because I'm scared that I'm not learning everything that I should learn" (Wendy). When asked what she does to ensure she does not jeopardize her education, Wendy responded that she takes the initiative to ensure objectives are met and questions are answered: "I make sure that all my objectives are met and if I have questions, I go to my teacher." On the other hand, Kristin emphasized that she does not like self-directed learning as it is being practiced at the college because "There is too much independence." She stressed that this sentiment does not mean she cannot learn independently; she simply does not prefer this approach: "I really hated all this self-learning and feel cheated in many respects." An example of her frustration was described in her journal: "We have an assignment and a post-test to hand in tomorrow. I cannot find some answers from the video or my notes. I'm a little frustrated because I know that my teacher won't answer me if I have a question....Sometimes you can't learn everything on your own." Underlying the concerns of both Wendy and Kristin seemed to be educator support as opposed to

educator direction. "I try many things before I ask for help. If I can't do it, I sign up and get help and usually [teachers] are quite good about it. They don't have a lot of time to sit with you but most teachers I have asked have explained" (Kristin).

All student participants set high standards for themselves and each was achievement oriented: "Why bother doing less if you can do more?" (Kate); "I'm not willing to settle for less" (Dana). They indicated a sense of personal fulfillment and pride in their work if they could accomplish more than the minimum requirement set by their teachers, in other words, "to get to a higher level than what the teacher is asking" (Kate).

Suzanne noted that she does not "do anything halfway," and this technique is applicable to more than her school work: "At work I always bend over backwards." Theresa suggested that extra work "beyond what I need to do" makes the project better and makes her feel better, but it also "impresses the teachers too." Although not mentioned as the primary motivation for extra effort, participants are conscious of their teachers' reactions to their efforts.

In a project for which Dana completed more than the minimum requirement, a description of treatments for a disabled patient, she also discussed the patient's history, reasons for the disability and other experiences that led to the current situation. She explained that this made the project more interesting for her and it made her patient more realistic. Also, she believed that this approach clarified her project for her instructor: "Instead of just saying I did this, I put in the why."

Resources and Relationships

When discussing learning resources, student participants referred to their educators and the college as only part of the learning equation. Extracurricular seminars, activities, and readings were deemed as important as the institutional learning opportunities.

Extracurricular activities were cited as invaluable resources. Wendy reported that, on her own, she took a special seminar on palliative care because she wanted to learn about this area. Furthermore, Theresa and Kristin each had attended several professional seminars and workshops that were not part of their course work. All of the participants mentioned that they do not limit themselves to their course texts for reading material. Kristin had joined a professional association and reported that she regularly reads journals and bulletins. Charlotte cited current television programs, documentaries and newspapers as valuable resources; she also found that she was learning from friends who were studying in different programs at the college. Suzanne reported that she has often asked nurses who were on duty during her clinical placement to show her procedures about which she wants to learn more. Kate also found opportunities to learn from those who had more knowledge or experience: "If it is something I really want to [learn], I'll find out what avenues to take." For example, Kate made herself available to work with the local deaf community so that she could learn: "I take it upon myself to understand their language and improve my skills on my own. After a certain point, you can rely less on the teacher."

An indirect source of learning was cited by Charlotte who recognized that she

also learns from others' mistakes: "From other students' mistakes, I've seen how to do things better."

Correspondence courses and continuing education courses at the local college were important to Dana while she was a practicing dental assistant before entering the Dental Hygiene Program. Kate frequented a club for the hearing impaired and a church for the hearing impaired: "There are things you can find out about and take part." Although students in the Sign Language Program are encouraged to take part in the hearing impaired community, Kate noted that they are not given course credit for this involvement. Furthermore, Kate had demonstrated this same enthusiasm to learn more about her discipline before enrolling at the college; she had volunteered at two summer camps for the hearing impaired in Kitchener and Puerto Rico and she had taken summer classes and private lessons in signing before entering the college program.

Charlotte referred to social events as learning opportunities; for example, she attended a BBQ where she met many second-year students and used the opportunity to ask them questions.

Relationships with peers. Peer support systems appeared to be important for most, but not all, of the student participants. With reference to the self-directed learning process, students alluded to the necessity of group work in order to "bounce ideas off each other" (Wendy). Suzanne described a study group with which she works on a regular basis; this group of four students meets every day to discuss case studies, do their homework together and to share the work in their learning packages.

In fact, she noted that if any of the members of her group have questions during clinical practice, they will approach each other first before approaching the teacher: "If we don't know the answer, [then] we'll go to the teacher."

Dana emphasized her preference for group work because she needs the opportunity to interact with others. She stated that she often asks questions during lectures "to keep myself focused" but prefers group discussions and "think tanks." Furthermore, although she ultimately makes decisions for herself, Dana reported that she likes to hear the opinions and ideas of others first.

Participants who were less enthusiastic about group work tended to be most concerned about the end product of the group's efforts rather than the process of learning: "I wanted it done really good (sic) and I wanted it done on time" (Kristin). They described the frustration they felt when working with others whose standards they perceived as lower than their own. For example, Theresa remarked that "you find yourself redoing what all the other people aren't doing." A similar sentiment was echoed by Charlotte who stated, "I end up doing all the work anyway"; however, Charlotte did state that she enjoys working on group projects "if the others aren't fooling around." Kristin agreed: "It depends on who (sic) I am working with." Nevertheless, these frustrations were connected to group projects, not necessarily group discussions. Theresa emphasized that she likes to discuss things and prefers to do this in small groups.

All of the student participants described themselves as leaders in group situations and this was considered to be a trait of their self-directedness. For

example, Charlotte provided group work as evidence when describing herself as a self-directed learner: "Every group thing that I have had to do...proves that I am self-directed because I have had to take--not only had to because no one else would, but because I wanted to take--the lead so that it was done right." Wendy cited an example of a group to which she was assigned and another student was the leader; however, as the project progressed "Nothing was coming together. It seemed like I said, 'Everyone is going to hand their stuff into me by this date; we're doing this'....It's like I panic--if I'm not going to do it, it's not going to get done." The common theme in all of the explanations regarding their leadership was the desire to have a project completed on time and satisfactorily: "I know how I want things done and I want it done on time" (Kate); "I like to organize things and have things prepared well" (Kristin).

Although Kristin stated that she found group work frustrating due to the varying schedules which make meeting times hard to schedule and the variety of ideas and opinions, she often referred to peers outside the college as her support group. For example, because Kristin felt insecure and unprepared when required to begin her clinical experience in November, she contacted friends and acquaintances who were working as dental hygienists and asked for advice: "I talked to other girls who went to different schools and some of them gave me their notes and...textbooks....It really helps to have friends in what you are doing in the field. If I was having trouble with this instrument...they would [advise]. The teachers really didn't start giving us tips like that until second semester."

Two of the participants referred to themselves as advisors of their peers. Dana noted that she likes helping other students and, in the end, she benefits as well: "I like teaching other people; I always learn something more myself." Charlotte noticed that younger students often asked her to help them when they missed classes.

Relationships with educators. "Teachers treat the students like people, not like kids....She treated me like an equal." (Wendy). This sentiment was shared by all of the student participants, some of whom had imagined before coming to college that college educators would be very strict and distant: "Up there pointing a finger and saying, 'You've got to learn this'" (Wendy). "I watched too much TV because I thought we would need to bring tape recorders and take notes....I thought teachers knew students only by numbers" (Theresa). Furthermore, participants referred to themselves as adults or as young adults and they were pleased to learn that their teachers treat them as adults and with respect: "Good teachers demonstrate respect for the students" (Theresa). Theresa was adamant that students would treat clients with respect if they are respected as adults by their teachers. Furthermore, Charlotte emphasized that "I learn and act like a mature adult when treated like one." In keeping with the student participants' perceptions of themselves as adults, there were also references to teachers as colleagues: "It's a great feeling to be on a one-on-one basis" (Wendy); "Here I am--I am their colleague" (Kristin).

Although Suzanne had described the autonomy she was allowed when in the hospital for her clinical experience, she cited one experience in her journal when this was not the case and how she handled the situation: "[Our teacher] takes right over

and it makes me mad. I discussed it with her and she said she would try to allow me to answer before she does. It is insulting to me that I don't get a chance to show what I have learned."

Activities. Student participants described themselves as active participants and listeners in the classroom setting. "I like to participate in class--discuss, question, do--I learn better that way" (Dana). Several participants noted that they tend to ask a lot of questions; in fact, Theresa believed that she had been identified as a self-directed learner because "I ask a lot of questions." Although Kristin described herself as "much quieter in the classroom," she noted that she tends to ask questions if something needs to be clarified, not only for her own sake but often because she knows there are some students in the class who need further explanation. For example, if she had noticed that some students were making mistakes in their clinical practice, she wanted to ensure that this could be corrected since one error could have an impact everyone in the clinic: "A lot of girls were being stepped on and that is not right. Sometimes I would ask, 'Could you just clarify what procedures are to be seen before others [are followed],' so that the whole class hears."

Listening was described as an invaluable tool for learning. "I love listening to ...teachers talk about their patients and certain experiences (Suzanne). Kate supported this notion and remarked that she learns from listening to anyone who has had experience, not just teachers: "You can learn [from] their stories and their experiences....even if you are not going to experience it."

However, when referring to lectures, participants reported contradictory

preferences and varying degrees of learning. In fact, some participants stated categorically that they do not like lectures: "I don't like being lectured to or at" (Charlotte); however, if the lecture involves student discussion and participation, the majority, including Charlotte, prefer a lecture for classroom learning. Wendy noted that "it is always the stories that you recall."

However, in contrast Kristin expressed frustration because she often feels ill prepared for some of her lab work and she believes that some lecturing would solve this problem. Her perspective is that students are expected to absorb new material with minimal teacher input. "Somedays I would really enjoy a good lecture. I hate having new information forced on us with no introduction."

All of the participants agreed that they prefer to learn through practical experience and application. Kate described her preference for learning as "hands-on stuff, actually doing what we've been taught." Wendy also referred to "hands-on learning" and added that, in the classroom, she likes to work with puzzles. In fact, not only do participants prefer a practical approach, they believe they learn better this way: "You learn more by doing and that experience builds concrete knowledge" (Suzanne). Furthermore, Suzanne reported that her performance is much better in clinical practice than on tests. Although Charlotte agreed that she learns through experience, she realized that she is cautious because she is often working with clients and, therefore, would prefer to know what she is doing before "experimenting" with her clients; she expressed concern about making mistakes which would endanger her client: "I didn't want to hurt them....Maybe that is my problem; I don't want to do

things wrong so I don't try and do them as much as I should."

In keeping with their description of themselves as self-disciplined, another common term used by most participants to describe themselves was "organized." They all mentioned that they are prepared for class, having done their readings and any homework or projects that have been assigned. Charlotte referred to a work schedule that she has created and adheres to: "I have noticed a lot of my stuff was done way ahead of time. I don't have to cram." Kristin reported that she likes to be prepared and organized in advance so that she knows what the teacher is talking about in a class: "I like everything to run smooth so that if something comes up I can deal with it." Although Suzanne considered herself a procrastinator, she also emphasized that she is never late with an assignment and is always prepared for class. Furthermore, Suzanne's self-discipline and organizational skills were in evidence when she described in her journal how she managed her time between a part-time job (16-30 hours per week) and school: "No school to-day because of scheduling problems so I did some readings and my [learning] packages....My work is never done. If I am off of school, I have to work and if I don't work, I do homework. Never a day for myself."

Within the context of describing how they learn, participants made references to their study habits. Most of them differentiated between memorizing course material and understanding it. There was a perception that some material requires memorization but they all agree that they are more comfortable with the material if they understand it. Wendy noted that she does not like memorizing; however, she

can easily recall material that she has memorized whereas she has difficulty often with what she referred to as rationalizing: "You want to judge somebody right away but you can't. You have to sit down and say--maybe they are like this because they've got this, or they are showing symptoms of this." To compensate for this difficulty, Wendy finds that she reflects on situations she has seen or experienced and relates that to what she is reading. Although she memorizes for exams, Wendy does this by applying what she is learning and in this way can more easily recall it. Kristin reported that she also memorizes but simply because "the course is so jam-packed"; in fact, it seemed that when Kristin memorizes, she is mostly concerned with exam preparation: "Review books...they are great. They have a brief summary of the course and then there are tons of review multiple choice questions. It's great 'cause I can time myself and do a good review. My National Board Exams are all day long so I have to be able to answer quickly and accurately."

Evaluation and Grades

Formative and summative evaluations. Student participants reported that they believe student suggestions regarding curriculum are welcomed by educators; however, with one exception, unless the students have taken the initiative to make suggestions mid-term, their input is not invited until the end of each term when course evaluations are mostly formal and summative. They believe that their educators accept suggestions and possibly make changes in the curriculum; however, they are doubtful that implicit changes are made: "I don't think a teacher would

change his way" (Theresa).

All of the participants noted that they offer opinions and ideas when asked to evaluate courses and instructors. Kate stated that she was not aware of being involved in the design or structure of a course; however, Wendy said she believed she had seen some of her ideas carried through when clinical hours were increased the term following her suggestion. Dana's overall impression was that students do have input into curriculum and structure: "We have done a lot of that with our instructors [and] the courses they give and how we think they might be improved." Suzanne indicated that her evaluations usually suggest that students need more practice.

Most of the participants provide in-progress evaluations in reaction to aspects of the course if they are unhappy with something. For example, Kate described a situation in which the class suggested a text should be changed because it was too difficult. Theresa recalled effecting change in her first year when she organized a petition which resulted in a class discussion with the coordinator and the teacher involved.

Only one participant cited an example of formative evaluations being invited by her teacher and these were informal and on-going: "We have...a pre- and post-conference [in the maternity course] and we are always bringing up stuff....She would periodically ask us, 'Was there anything that you guys want to do?' and everybody had an idea at one time or another what they would like to cover" (Wendy). Kristin reported that she would be uncomfortable making critical suggestions because of the danger of "negative vibes"; however, she noted that a teacher provided a lecture once

because the class had indicated this as a preference when having difficulty understanding something in the course. The class felt this one lecture went very well and were disappointed that this format was not used again.

Tests and exams. All of the student participants referred to tests and exams as important components of their programs of study. Although there was reference to tests as necessary, there was some discussion about what exactly tests tested. Not surprisingly, participants stated that they "like the practical work the best" (Suzanne) or the opportunity to perform "hands-on skills" that have been learned (Wendy). Furthermore, two of the student participants discussed tests in terms of what was being tested. Suzanne stated that "tests do not test learning; they test memory." However, she also stated that tests provide students with an opportunity to see if they are learning. In her journal, Charlotte reflected on the purpose of tests and compared her impressions of the purpose with what she had been told:

> I've been told that tests are not to see how much a person knows, but rather to see in what areas they may be having trouble. I've also been told that it is not really to test the students but instead to test the teacher....I don't think that a test serves either one of these purposes. Students who are never in class, and who don't study often do just as well as those who attend each class, keep good notes and who study for days....There are those who can just sit in class and do well without studying, or those who don't go to class, but study someone else's notes...There are so many ways to get around actually doing the work if you really wanted to, that tests don't really provide any

> information as to how well a student is actually comprehending the material...They do, however, provide the major percentage of a students (sic) final grade, and that is why they are so "important."

Two of the participants indicated that they study according to what they think will be tested; for example, Suzanne referred to "not wasting her time" on aspects of the learning packages that aren't important and Kristin stated that the focus of most of her work is to pass tests. However, Charlotte was not in agreement with this approach because then she would not know all of the material, only what was being tested: "What good will that do me if I only know half of it....I wouldn't know it when I went out on placement."

High achievers. High grades are important to all of the student participants; they believe that grades are an indicator of learning and effort. For example, Dana declared that good grades are a goal for her: "If I'm not the best, I don't think my performance has been good." Furthermore, Wendy believes that if her grades for clinical practice are comparable to the grades she is receiving in her course work, she has evidence that she is learning: "It shows that what I am learning is sticking." In keeping with this theme, Theresa contended that she would rather hand in nothing if it were not her best. However, she also referred to a high school course that she enjoyed and learned from, but her grades were not high: "One of my favourite courses was Man in Society....I probably got in the 60s but I was still happy. I felt that I had learned something. The grades are a kick." So, although grades were not indicative of Theresa's perception of her learning in this case, she later came to

expect more of herself and grades represented concrete evidence of achievement. In this her graduating year, Theresa was the recipient of an award for having achieved the highest grades in her program.

Most of the participants agreed that grades have not always been important to them; however, good grades nurtured a positive self-image. For example, Wendy remembered that she first became an honours student during her last two years of high school: "I got praise for this; I started to feel better about myself because I saw myself achieving something....The more I see that I achieve, the more I want to work at it." When Charlotte entered college, grades were not important to her; however, she had all A's at the end of her first semester and was bothered at the time of the interview because she did not have all A's in her second semester: "Getting [all A's] the first semester made me change my short-term goals." If she does something well, Kate described feeling good, accomplished and certain of high grades which are important to her: "If I got a lower grade, I wouldn't be disappointing anyone but myself."

It seemed that the common trait among all student participants was high standards. This was captured by Kate who, in discussing grades, stated that she would not be comfortable with no grades because "If there were no grades, I wouldn't know where I stood." However, she then realized that students receive a satisfactory/unsatisfactory rather than a grade in their labs and she is not concerned about grades when working in the lab; she simply ensures her work is high quality.

Peer and self-evaluation. Peer evaluation was not discussed much by the

student participants. However, Charlotte expressed confidence in the ability of her peers to evaluate her learning and her knowledge based on the experiences she shares in class.

All of the students seemed to accept the evaluation of their work by their educators. Charlotte stated that she gets along with her teachers. They seem to be pleased with me ... so their evaluation of me is fairly good and accurate." In fact, Charlotte appreciates the positive reinforcement that educators provide in an evaluation: "They may say more positive things than I would think of myself."

When referring to self-evaluation, Charlotte commented that she does not like to "pat myself on the back." Her class has had some experience with self-evaluation of counselling tapes and she has noticed that "most people write down the things they do bad." Although she believes that students should be able to recognize their weaknesses, she also believes that strengths need more recognition: "I don't think we concentrate on our positives as much as we should." This viewpoint was held by other participants as well. In fact, Dana stated that she tends to be very critical of her own work: "I don't think I give myself enough credit. I tend to think I can always do better. Even if I had done 100%, I think I can get 110%." However, Suzanne seemed to view this critical tendency as a strength: "I'm not afraid to put my weaknesses. I know I have them."

Student participants were not certain of the weight their self-evaluations carried in their final grades but this did not seem to be a concern. They believed that the objective of self-evaluation was to have students reflect on their work and, although

some stated that they found the process very difficult, it was an effective technique for this reason: "The teacher can see where you know you have gone wrong and he doesn't have to tell you again. He can see you were learning something." Nevertheless, Wendy emphasized that she "hates" self-evaluation because it is very difficult; however, she also stressed that at times she has more confidence in her own evaluation: "If I think I have done well and I don't get along with a certain teacher, and they don't think I have done well, their opinion means nothing to me." On the other hand, Suzanne believed that usually the student's self-evaluation and the educator's evaluation coincided: "You pretty well know what you are doing and how you are doing."

Personal Growth and Development

Self-image. Confidence and healthy self-esteem were common characteristics exhibited by all of the student participants. Furthermore, students were proud of their achievements and did not take their successes for granted.

The two nursing participants, Wendy and Suzanne, were self-assured young women and each described pride in being recognized as capable and trustworthy by teachers and supervisors when they are on clinical placement. For example, among other similar experiences, Wendy was allowed to dispense medicine alone after only two days with her clinical teacher; she stated that she was allowed to dispense medicine on an entire floor without her teacher checking up on her: "She had enough confidence to let me do the floor on my own....Give me my wings and let me fly."

Likewise, Suzanne found that she was often left on her own to do dressings or give intramuscular injections. Wendy reported that her educator had told her that she was left on her own because the educator had confidence in her: "She treated me like an equal, like one of the staff members." Along a similar theme, Suzanne believed that her teacher knew that she was familiar with the material because of her class participation and "She trusted me to do it."

"I feel that most of it comes easy because it is what I like....It comes easier because I want to learn this and it is so easy to learn. I have an interest in it" (Wendy). Kate agreed that "enjoyment leads to learning."

Experience and education. There was a general impression that much more learning takes place once students begin the application of their studies outside the school environment. For example, Kate believes that classroom learning may even seem irrelevant until a situation arises where classroom learning can be applied and this is when a student is likely to reflect on the learning: "You can go to classes and...understand everything that is being taught; it sometimes doesn't mean anything...until you can apply it...and then you learn what they actually meant." Kristin described her learning at school as "textbook perfect and you never get that outside"; she strongly believes that courses should incorporate job-related activities "so that students are not shocked when they get to their first job."

All of the student participants value "hands-on learning," whether that takes place in clinical practice or field placement.

Suzanne wrote in her journal that "actual experience on the [hospital] floor is

100 times better." She noted that it is here that she has an opportunity to become more self-directed: "Self-learning and self-direction come into play here a lot. On the floor, you need to do things on your own and be able to have a one-on-one relationship with the nurses and your teacher."

Other experiences. Student participants placed a high value on the variety of experiences they have had and credit these experiences for their independence, self-discipline and self-directed learning styles.

When comparing herself to her peers in the Developmental Service Worker Program, Charlotte referred to how much easier she finds the course work and she believes this is due to her experience: "I'm finding the course really easy; I'm learning details about things but I'm not coming into it totally blank....These 18-year-old girls are...[bewildered] and I just figure I have more experience than them." At the time of this statement, Charlotte was two years older than many of her peers and had half a year's experience attending a university and living on her own. She mentioned that she had expected the previous year at university to be a growth period; however, she believed that maturation had taken place this year instead.

Dana also cited experience as beneficial in terms of her learning because she is able to prioritize better: "[Through] experience, you learn what is important to yourself."

Extracurricular activities and part-time jobs were cited as important experiences; participants reported that it was in these areas that they developed skills such as self-direction and self-discipline as well as interpersonal skills. Wendy

referred to her first job in a variety store where "I did everything myself" and to her part-time work at McDonald's which "requires a lot of self-teaching." Suzanne credited her work at the Big V Drugstore for teaching her that people are important: "I always bend over backwards to help people"; she has noticed that this attitude has carried over into her work at the hospital.

Many of these extracurricular activities involved positions of responsibility; Dana was a figure skating coach, Wendy had been promoted to a supervisory position at McDonald's and, at the time of the interview, Suzanne was the front desk clerk of a medium-sized hotel where she worked unsupervised. Dana emphasized how her experiences helped her develop skills with people as well as skills in time management because she also had a part-time job as a waitress at the same time as she coached skating.

Because of her years of experience as a figure skating competitor while a high school student, Kristin believed she learned how to manage her time and set priorities: "It was very disciplined. I...only had a certain amount of time to do homework. When the guy was flooding the ice. I had that time to hurry up and do something, [not] just sit there and come home at 11 at night and have to do homework." She also was balancing work when she was a dental assistant with a part-time job in a nursing home, a position she intended to return to when she completed her dental hygiene program.

Some of the student participants referred to their learning style in high school as self-directed. In two cases, they believed that the large size of their high schools

was of some influence: "In high school our classes were very large. If you didn't research on your own, you could get lost very quickly" (Dana).

Childhood experiences and activities were also perceived to have been of some influence regarding how one approaches learning. Kate referred to her parents: "My parents...always worked hard and did things to the best of their ability...and got things done on time and were responsible for their actions. That's how I have always been."

Overall, student participants were proud of their achievements at college; in fact, there were some comparisons to their image as high school students which emphasized how meaningful success at college was. Although Charlotte had some post-secondary experience, she stated that she considers this first year of college her first year of "being a real student [because] I am actually learning this year." She believed that she was a less-than-ideal high school student: "I was a brat....[and] I hated school." Moreover, Theresa reported that in high school she simply memorized the material and did not care if she really knew it or not.

Learning Settings and Learning Influences

Students in the Dental Hygiene Program are required to have a minimum of two years of experience working in a dental office and Kristin and Dana referred to this experience as part of their learning. Kristin described her first full-time job as "incredible" because she learned and experienced so much more than was possible during her one-year Dental Assistant Program: "These dentists are working like you

wouldn't believe and just the variety of things you see." However, she emphasized that two years of practice did not give her a lot of hands-on experience. In fact, Kristin was critical that the Dental Hygiene Program was only a one-year program because she feels ill-prepared to meet the demands of the job; she would like to see the program requirements extended one more year: "What I wouldn't give for another year."

On the other hand, Dana referred to how much she learned as a dental assistant and that that experience has helped her a great deal during this current year. Much of what she has learned is quite subtle; for example, she now notices that she can recognize patients who act confident and knowledgeable about their teeth but in fact "they are just afraid to ask."

When she was reflecting on a class the day after having been at the hospital where she felt "self-directed," Suzanne questioned why classes were necessary: "We had to read chapters in our text and do our [learning] packages to be prepared....Sometimes I wonder why we even have to come to class. Everything she says is word for word from the textbook and from our self-study movies. I guess it is if we have questions and I sure have a lot of those."

Charlotte emphasized the value of her four-week work placement because she learned a great deal about how to work with other people; she found that she changed "big time." In describing her duties on placement, it became apparent that she was relied upon to be efficient and reliable.

Two dentists who work with dental hygiene students in the college clinic were

described by Dana as supportive of self-directed learning: "They will ask you questions and they will make you think and they encourage you more to get out and learn yourself."

College and university influences. Student participants described their impressions of the college environment in contrast to the university environment and they all had opinions on the impact each setting has on student learning. Size and population of the university setting was seen as both an advantage and a disadvantage.

Three of the participants had some university experience prior to enrolling at the college; for example, both Suzanne and Dana had attended university for two years each and Charlotte had attended for half a year. All participants referred to the size of classes at the college as being an advantage because there was more personal contact with educators and other students: "You have more time to get to know your instructor and the classes are smaller and there is more time to interact....You get lost in the crowd at university" (Dana). In fact, Dana also referred to the college as a "family" whereas the university was an "institution." The size of a college makes everything and everyone much more accessible to the students, according to Suzanne. For example, she described the college as "much more personal" in contrast to a university where the hassles in trying to find parking were a deterrent in seeking out her professors for consultation.

However, because of their experiences as university students, all three participants believe that they are more self-directed as college students. Suzanne compared herself to other college students who have not been to university: "They

will sit there and if the teacher doesn't write it on the board, they don't write it down. [Because I've been] trained from university, if something sounds important, I write it down. I do things on my own for my own learning." Charlotte also referred to note-taking skills that were honed at the university as well as experiencing failure which she did not want to repeat: "I knew this time what I had to do to make it right." All three participants referred to the experience of learning to be on their own at university and learning to take initiative as a result. In fact, Wendy stressed that she had to learn to be self-directed at university because students are left so much on their own.

Student participants stated that they are enjoying college. Many referred to the interaction in the classroom as pleasant, and Charlotte was surprised to discover that learning need not be difficult: "I think it is as hard as you make it." Suzanne described her courses at the college as "common sense" and that, if she does her work, she does not have difficulty learning. Kristin emphasized the hard work and commitment that college requires: "It was nine to five everyday and there was tons of work."

Academic paradigm shift. Most of the student participants are not as aware of the paradigm shift as the educators, probably because five of them do not have previous experience at the college at the time of the interview with which to compare. However, two of the student participants were at the college before the paradigm shift was implemented and they made some comment on the differences that they have perceived. Wendy commented that she finds the paradigm shift difficult because "I

am finding it hard to change over [but] I think it has its good qualities." She was noticing the biggest change in the number of hours in a lab: "That is what we miss, the hands-on. We feel that we need practice." However, she stated that she really likes self-directed learning because "[the college] can only teach so much [but] there is so much to learn." Furthermore, she believes that students should take the initiative to learn on their own; she stated that she foresees more initiative expected of students in future education.

On the other hand, Theresa was in her final year at the college when the paradigm shift was implemented and she had heard about it but was unfamiliar with it; she stated that she believed the institutional structure at the college had no influence on her learning.

Suzanne noted that she is aware that classroom time has been reduced on the students' timetables as part of the paradigm shift; however, she believes that the result has been an opportunity to become more self-directed and "self-directed learning is more beneficial to the student."

When asked whether the college has a role to play in facilitating self-directed learning, Dana replied, "I think they need more self-directed educators...for people who like to...learn more than just the basics." Other student participants maintained that the college's primary role is to provide resources and guidelines.

Institutional constraints. Lack of space and an overcrowded campus were commented upon by Wendy. When contrasting the amount of lab time available to her class, she commented that students could take the initiative to create their own

labs. However, this is not possible due to the size of the campus and the student population: "With the school being so overcrowded, the rooms are not available most of the time....With our schedules at the hospital, it is really hard."

Time constraints were linked with the space problem as well as curriculum. Kristin was most emphatic that the Dental Hygiene Program placed great demands on her time; however, she seemed to believe that the demands were appropriate but the amount of time students had to learn everything that was necessary was insufficient. She compared the one-year Dental Hygiene Program to the three-year Nursing Program and noted that even the nursing students feel they need more time: "What I wouldn't give for another year!" Because she felt that assignments and homework were "crammed into a year," she resented what she called "the scavenger hunt for information" because she was pressed for time. Kristin demonstrated stress and anxiety regarding the amount of learning she was expected to accomplish on her own because of the time variables; she frequently referred to her frustration both in the interview and in her journal.

Suzanne cited time constraints as a problem in terms of two of her classes. In one example, she described the need to do background readings and research before class because "there is little time for discussion." In another example, she was upset because she felt she was under a lot of pressure to complete her biology course on her own due to insufficient time for the course: "We have also run out of time for biology class and [the teacher] has photocopied all the notes we need for the final exam. So it is teach yourself from now on. I don't think that is very fair....I'm not

as worried as the other guy but it still puts us under a lot of pressure."

Educator influences. Student participants referred to the variety of teaching styles to which they are exposed and how they have had to be flexible in their learning strategies. For example, Charlotte referred to an educator who did not do much in class so the students had to learn on their own: "I think everyone's method for teaching is different and I think that is good." The experiences most participants had had with part-time teachers was not always positive; in fact, they believed that sessional and part-time teachers often did not know how to teach or they perceived themselves as "experts" and often taught by doing all the talking. Theresa described how difficult it was to learn from an educator who did all the talking: "[The class] just sat there staring at him."

Kristin expressed a great deal of frustration at the amount of learning she perceived as her sole responsibility; she often expressed disbelief at how little input and direction she got from her teachers. "I hate doing projects that are just thrown at us and [we're] not given any further direction, as much as I like being treated like an adult." In lab situations, Kristin often felt like she was improvising: "A lab that was totally frustrating....When we got to the clinic we were given the materials we would need and told to go do it. I couldn't believe it. We even had a guest present who was working in the field and she gave no input as well." However, in this same journal entry, Kristin described how her previous experience came into play: "I had been exposed to this area of dentistry in my previous job, so I was able to 'wing it' and help some of my friends." She expressed how she often felt underprepared for

clinic and yet had clients "who were really terrific to come because I don't think the teachers prepared us enough. I was scared to death."

Dana provided a somewhat different perspective in her description of one of the educators in the Dental Hygiene Program. She cited a particular teacher who influenced her to be more self-directed and who encouraged her to extend her education: "She is a self-directed learner and so that is the way she taught. She had a big influence. Everybody found [her courses] toughest but those were the ones I did the best in." Dana believed that many students found her courses hard because the questions she asked were not directly from the material she taught: "She asked [test] questions that made you think and she found out if you did any extra reading on your own or if you took what she said as gospel....She wanted you to go out and learn on your own."

With the exception of Charlotte, all other student participants cited some college educators who explicitly encouraged them to be self-directed. Suzanne described a teacher who tells students to read on their own and encourages more self-study. Wendy referred to her clinical teacher who allowed her a great deal of independence on the hospital floor and who encouraged her to seek out anything she wanted to learn about when her work was finished. The gradual introduction of independence helped Wendy gain confidence in herself as a nurse who would not have to be led. On the other hand, Kristin stated that she found this a frustrating way to learn even though she knew self-direction was being prompted: "I would ask for help and they would say, 'You are supposed to learn so I'm not going to tell you.'

Meanwhile, everything else has gone wrong in my life that week and [I'm] on the verge of tears."

In contrast, Charlotte stated that she did not think any educators had encouraged or facilitated self-direction because it was not necessary: "Maybe for some [students] who are really lacking...[a teacher] did but no one did it for me because I don't think I needed them to."

Theresa described an educator whose approach she enjoyed and who had a great deal of influence in her learning. He had explicitly stated at the beginning of the term that he was going to challenge the students' thinking: "He said that instead of trying to teach us a bunch of stuff, he was going to try and change our attitudes...and our opinions about things." His approach was described as "questioning why we thought that way" and it was very successful for Theresa, although she reported that not everyone in the class paid attention.

There was a general consensus among participants that they are more likely to be motivated if a teacher is approachable and if they are able to develop a positive relationship. Kate contended that both the student and the teacher have to make the effort. In her case, she deliberately talks to teachers outside of class, asks questions and gets help which, in turn, builds a relationship: "It lets the teacher know how I am learning and makes the process easier for both parties." Suzanne also emphasized the influence of one educator who had helped her through a difficult grieving period when her cousin died. She believed that this particular educator was capable of special support because she is a nurse and deals with death on a regular basis.

Overall, participants cited their families as the most influential people in terms of their approaches to learning. Dana described her family and friends as very supportive: "They encourage me and get me going and are very supportive." She believes that she surrounds herself with those who will push her and that her husband encourages her to be self-directed, just as her mother had done when she was a child: "She would give me a task when I was little and tell me to go and see if I could do it myself first."

Theresa referred to her mother-in-law several times as an influential figure in her self-directedness and in her elevated self-confidence. Parents were described by some participants as supportive but not "pushy": "They let me go where I want to go" (Wendy).

Kate held that she studies and learns according to the model set by her parents: "They always worked hard and did things to the best of their ability...and got things done on time and were responsible for their actions. That's how I've always been."

The Institution

Institutional documents, campus visits and meetings with a key informant and the research contact, the Dean of Academic Planning, provided further insights.

Academic Paradigm Shift

The key informant, Barbara, a faculty member of the college who is assigned to assist faculty with curriculum development, believed quite strongly that there was

no paradigm shift happening at Ontario College. Rather, from her perspective, the same programs are being taught in the same way they have always been taught except with less time and money. Although none of the educator participants expressed this sentiment, Barbara contended that many educators were angry about the imposition of this paradigm shift, often because they felt they had no input into the process of change.

The Dean of Academic Planning, Bill, was my research contact at Ontario College and he was very amenable and pleased to meet with me whenever I was on campus. He was responsive when asked for college documents and seemed interested to engage in discussion about education both generally and specifically in terms of his own college. I had asked him for reports, internal memos or documents regarding the academic paradigm shift and he informed me that there were no such documents except a draft of proposed implementation principles for the paradigm shift. However, some time later, toward the end of my on-site visits to Ontario College, a discussion paper was circulated by the college president to middle managers and I was provided with a copy of this document. In this paper, the president clarified the meaning of the term paradigm shift and his intentions in implementing these changes in the college.

The parameters of the academic paradigm shift at Ontario College were described in the draft of proposed implementation principles as follows:

* all program hours would be 25 hours per week
* in a three-year post-secondary program, students would have contact

with their professors for an average of 20 hours per week during their period of study at the college. For example, in a three-year program the formula was described as follows:

Year 1 - 22 hours per week

Year 2 - 20 hours per week

Year 3 - 18 hours per week

* for the hours not assigned as professor contact, options were specified which came to be known within the college and within the Ontario college system as self-directed learning. The responsibility for the effective use of this time was to be under the guidance of a professor as follows:

i) scheduled, unsupervised learning;

ii) supervised learning activities with paraprofessional support.

In his discussion paper, the president emphasized that the fundamental shift involves the definition of the primary activity of the college which is seen as teaching: "The teacher is viewed as the front line worker....The systems make the assumption that the student is a passive rather than an active learner." His vision for the academic paradigm shift switched the focus from teaching to learning and suggested a redefinition of roles.

Self-directed Learning

Although the term self-directed learning did not appear in the discussion paper circulated by Ontario College's president, he did emphasize that students must be given more responsibility for the learning process: "One reality that must be addressed, as we transfer more responsibility for the quality of the outcome of the learning process to the student, is the current learning habits of our students. Our education system has trained...students to be passive learners....Changing their attitudes must become an integral part [of our objectives]."

Barbara defined self-directed learning as follows: "The student sets their [sic] own goals, designs their own way of achieving those goals and shares in the evaluation process," and went on to say that she believes "there are pockets of self-direction within [some] programs."

Barbara questioned how a self-directed approach to learning would be possible within an institution that is "time-based...[has] traditional methods of evaluation, traditional ideas of how learning takes place"; however, she thought there were aspects of some programs where some self-directed learning activity was being implemented "at the senior level."

The Dean of Academic Planning, Bill, was asked to describe self-directed learning as he saw it being practised at Ontario College. He emphasized that self-directed learning was considered to be synonymous with "homework" and discussed the concept of self-direction in terms of a student's timetable: 25 hours a week would be divided into "22 hours of contact hours with a professor in a classroom and 3

hours with technical support or self-directed study." When he was questioned about teacher availability for one-on-one consultation, he emphasized that this would be considered a tutorial and "there is not enough money for that." Furthermore, tutorials were considered to be "remedial."

He also noted that the college facilities cannot accommodate the number of timetabled hours for self-directed study; for instance, in the above example there had been an attempt to timetable students for their weekly three hours of self-directed study in a college classroom but this became impossible because there were not enough rooms to accommodate all students who were free at the same time.

Educators' Needs

The first two statements embodied in Ontario College's Mission Statement are as follows:

1. Our mission is to assist individuals in successfully developing their knowledge, skills and values so as to enhance their quality of life, improve their ability to acquire meaningful employment and promote their community involvement;
2. We will provide our students with an accessible, dynamic and supportive learning environment which adapts to their changing requirements for quality lifelong learning.

According to Barbara, the key informant, the college's mission statement "is an overall accurate reflection of the college...we really do try very hard to

accommodate student needs." Based on her experiences working with faculty in the instructional development office and during curriculum development consultations, she has found faculty to be genuine in their concern to help students be successful.

However, she argued that although the majority of educators are committed to the goals stated in the mission statement, there is a need for more instructional development, particularly in a climate requiring a non-traditional approach to teaching and learning: "Staff education and development [is necessary], so that they can bring...something beyond what they learned themselves as students, something beyond what has been tradition." Nevertheless Barbara contended that insufficient funds and planning are not in place to sustain the changes required for the current academic paradigm shift: "If you are going to move from traditional methods of curriculum delivery, there has to be a long-range plan for that. There has to be money placed against that goal."

Approximately six years ago, there was an instructional development office set up at the college to which Barbara was assigned, but this office was "shortlived...it had just begun to have value in the eyes of the [college academic] community and was just beginning...to effect some change" (Barbara) when it was disbanded due to lack of funds.

Further to this, in 1989, Ontario College stopped participating in an orientation program intended as professional development for new faculty over the course of a three-year period.

Another contact at the college, the chair of the Academic Affairs Committee,

mentioned that support staff and management have formed their own professional development committees whereas the faculty of Ontario College do not have their own professional development committee. She also reiterated the perception that faculty require training and support in redesigning curriculum during this period of change.

Additionally, Barbara maintained that the faculty union must address the change in the traditional teaching-learning process if a shift is to be successful. For example, she referred to the language in the faculty contract, noting that there is more to teaching than traditional classroom contact which is how the current contract specifies student contact: "Consulting with a small group, a larger group, an individual, is a type of teaching. This is not what is formally [defined as] student contact hours."

The Collective Agreement for Academic Employees of Ontario Colleges of Applied Arts and Technology (1991) defines teaching contact hours in terms of a total workload formula: "Each teaching contact hour shall be assigned as a fifty (50) minute block" (p.13) and "Teaching contact hours for a teacher in post-secondary programs shall not exceed eighteen (18) hours in any week" (p. 18). This same formula recognizes contact with students outside the classroom as a "complementary function" to provide "routine out-of-class assistance to individual students" (Ontario Public Service Employees Union, 1991, p. 17). It allows a minimum of three hours per week to be assigned to a professor with a full post-secondary teaching assignment. If more complementary hours are assigned, the workload assignment would be redistributed and fewer teaching contact hours in a classroom would be assigned.

Resonant Themes

Throughout the data, there are key concepts and images that recur.

Since all of the participants act as caregivers in some capacity, it is not surprising to find an underlying **humanistic** approach to both teaching and learning. In fact, Betty Ann, the nurse educator at Town Campus, referred to herself as a humanist. D'Arcy, the sign language instructor, alluded to Ontario College as "an institutional family." Student participants were all working with clients in a caregiving or serving role either as part of a clinical placement or in a volunteer capacity related to their area of study and each student saw herself as responsible for the care of her clients. In this regard, educators perceive themselves as supporting their students and students perceive themselves as serving and supporting their clients.

Participants are committed to the teaching and learning process as well as the profession for which the students are preparing. The educators were conscious of their **"duality of roles"** in that they see themselves both as educators and as professionals of their field of study. Student participants described themselves as responsible students, and goal-oriented or focussed toward their respective professions.

Learning was seen as on ongoing process; educator participants continue to learn either formally or informally and student participants intend to continue learning beyond their current programs of study.

Relationships between educators and students were perceived as an important component of the teaching-learning process. Educators see themselves as professional

role models and the student participants yearn to share their experiences in the field. However, student participants also expressed the added credibility and effectiveness of those educators who have experience and training as educators because they understand the needs of their students.

All participants agreed that educators should be **approachable** and **collaborative** and that students are more likely to be motivated if they have a positive relationship with their teacher. Educators want to encourage students to take more responsibility for their own learning and student participants perceived themselves as **responsible adults**. In fact, students and educators see the educator's role as a guiding or helping one and they do not want an educator to be directive.

Experiential learning was highly valued by all participants. For example, educators believe that students learn best with practical, hands-on learning, and their own practical experiences assist them in understanding the needs of their students. Students emphasized the added validity that field placement and clinical practice give to their learning. In fact, clinical experience was perceived as providing opportunities for self-directed learning.

"**Motivated,**" "committed," "self-disciplined" and "organized" were the descriptors used by educator participants when discussing their expectations of their students. Furthermore, most of the educators portrayed the majority of students in their departments as just that. Likewise, all of the student participants described themselves in these terms which were the same descriptors used when discussing the self-directed learner.

Educators value the **independent** learner and they maintained that mature learners are not necessarily more independent than traditional-aged students. There was general agreement that students become more independent as they gain more experience within the educational system. Therefore, they perceive first-year students as more dependent learners than third-year students, regardless of age.

Student participants cited **other experiences** as contributing to their abilities as learners; for example, extracurricular activities, part-time jobs and work experience were believed to augment skills in self-directed learning, self-discipline and interpersonal communication.

University was often referred to as a setting where students learned to be more self-directed; however, student participants clearly preferred the college setting because of the smaller classes and **personal contact** with their teachers. High school experiences and family influence were also cited as learning style influences.

Not surprisingly, all participants valued **self-directed learning** although Kristin expressed some frustration with the process as practised in her program because she assumed that self-directed learning meant she should be left on her own more than she was comfortable. Furthermore, it was clear that the term self-directed learning had a different connotation than that used in the literature. However, educators and students were in agreement that initiative was an underlying attribute of the self-directed learner and that the self-directed learner generally is motivated, eager to learn and will often work beyond the expectations established for an assignment or project.

Although participants stated that they preferred the self-directed approach as a

learning process, no one questioned the established **structure** of their courses. Summative evaluations of courses were the only systematic evidence of student input. It was assumed that educators must design the curriculum with minimal student input and that students should be evaluated by their teachers according to the criteria established in the course objectives. Furthermore, many of the criteria were established or recommended by external accrediting bodies and/or prospective future employers. Where self- and peer evaluation was incorporated into a course, it was used primarily as a vehicle for student reflection.

Though many expressed frustration with the academic paradigm shift, generally it was perceived by participants as a model of self-directed learning because the students are responsible for completing their work on their own. The primary source of frustration within this operating model was **time constraints**: insufficient time for educators to adapt curriculum, insufficient time for teacher-student contact either in the classroom or for individual consultation, insufficient time for course work and insufficient time for labs where students can practice. Workload was also cited as a hindrance to effective teaching and learning: Both educators and students felt that they required more time for reflection as well as time to learn. Lack of space seemed to compound these frustrations although, because of the necessity to share office space at Town Campus, educators there noted that there is a strong collegiality among faculty of different departments and that they are more likely to have a rapport with more students. However, all agreed that the success of self-directed learning depended on the **availability of the educator** for support when it is

needed.

Educator participants believe that they **facilitate and encourage self-directed learning** in their students in a variety of ways. Students were somewhat aware that educators influence self-directed learning but this impact was less pronounced in their perception than their own initiatives and commitment to learning.

Furthermore, there were mixed feeling on the part of some student participants regarding self-directed learning; they were concerned that too much independence could jeopardize their education because they might not meet **objectives as prescribed** in the curriculum but rather go off in their own direction. Although educators reported that evaluation strategies depend on the learning context, it would appear that some of the student uncertainty stems from the more **traditional** approaches to evaluation; all courses represented in the sample required that a substantial percentage of a student's final grade be based on testing. This concern about accomplishing what is expected could also account for the students' work ethic - mastery of course work. All students reported that they are **achievement oriented**: Their grades are high and their personal objectives are higher than the minimum requirement as defined by their teachers.

Discussion, group work and problem solving were the preferred teaching strategies of educator participants; furthermore, there was general consensus that students need opportunities to **participate** to practice problem solving. Overall, educators reported that they did not favour the traditional lecture approach in the classroom but, nevertheless, they did consider their role as **flexible** and facilitative

and that, if direction was required, they would not hesitate to provide it.

On the other hand, educators reported that, insofar as they try to be flexible, they are **constrained** by the system and the curriculum in that much of the structure and curriculum is predetermined; however, they will empower students to make choices if there are opportunities for such **flexibility**.

Other criteria that affect teaching strategies were cited: **size of the class and level of the students**. For example, a larger class was seen to affect student commitment to learning and students in their fourth year of studies were perceived to require less direction and support than first-year students. Moreover, as students gained field experience, they were encouraged to share their experiences with each other; educators recognize that students can learn a great deal from each other.

Student participants agreed that opportunities to participate are important to their learning; furthermore, lectures are deemed appropriate, and often preferred, if **student participation** such as discussion is built in. However, group work was discussed in both positive and negative terms by student participants. On the one hand, students referred to the need to interact with others as part of a self-directed learning process but, on the other hand, some expressed frustration that the quality of work might be compromised because not every member of a group has the same standards or objectives. In keeping with their achievement-oriented nature, all student participants described themselves as **leaders** in group work so that they could ensure the quality of the work; this leadership trait was seen to be an example of self-directedness.

Educators cited four main factors that influence their teaching practice: **professional experience, related professional education, teaching experience and education courses**. All four factors combined are believed to contribute to a college educator's self-confidence which, in turn, lead to a less rigid, more flexible teaching style.

Summary

This chapter began with a description of the setting as well as a contextual overview of an Ontario College in which the research took place. Next, the participants of the study were introduced: six college educators who were identified as supportive of self-directed learning; seven college students who were identified as self-directed learners; and a key informant. Following the introduction of the sample and the setting for this qualitative study, data collected from individual interviews were analyzed and presented thematically according to sample groups. Finally, the themes and images that recurred were captured in a more concise form.

Although sample participants stated support for self-directed learning and the institution's academic paradigm shift was intended to encourage a student-directed approach to teaching and learning, the analysis showed that the definitions of self-directed learning varied. Furthermore, theory of practice and theory in use did not coincide. Most of the teaching and learning practiced by sample participants of this study followed a traditional approach within a traditional system although there was an awareness of and attempts to facilitate and/or engage in self-directed learning

within the context of a traditional system. Furthermore, the sample's knowledge of self-directed learning theories and concepts varied.

Chapter 5 presents and discusses the interpretation of these findings and how they can contribute to practice and predominant theories in the field. New questions and recommendations conclude this chapter.

CHAPTER FIVE: SUMMARY, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSION

This study investigated how post-secondary, traditional-aged college students and their educators perceive self-directed learning as part of the teaching-learning experience within a college setting. A summary of the findings will be presented in this chapter as well as conclusions and implications for practice, theory and research.

To facilitate lifelong learning, it is argued in the adult education literature that students must be provided with opportunities to be involved in the planning of their own learning. However, the traditional role of a student in an institutional setting is one of dependence and passivity; self-directed learning is often overlooked by educators when learning takes place in an institutional setting (Merriam, 1991). Furthermore, little can be found regarding the practice of self-directed learning in the post-secondary college setting.

A qualitative case study approach was used to gather descriptive, perceptual data from six post-secondary college educators who support the notion of self-directed learning and from seven of their students who were perceived by their educators to be self-directed learners. The Ontario college in which this study was conducted was selected because an initiative for restructuring had been implemented, an initiative intended to create a more efficient and more effective educational structure during a time of fiscal restraint. The academic paradigm shift at Ontario College was reputed to be a self-directed learning paradigm. Vision 2000 (1990), a report intended to redirect a vision for the Ontario CAAT system in the year 2000, envisions the college

system providing flexible, student-driven opportunities in order to meet the needs of a diverse range of learners.

A limitation of this study was that it focussed on self-directed learning as a theory of practice, but the definitions of this practice are many and varied, both within the literature (Candy, 1991; Gerstner, 1990; Jarvis, 1992; Long, 1983) and within Ontario College. After discussions with case study contacts and a reading of internal documents, it became apparent that the implementation of the academic paradigm shift was primarily concerned with cost reduction rather than concepts of self-directed learning as extensive as the literature. Institutional and systemic constraints must also be taken into consideration which have an impact on educator autonomy to empower students.

As illustrated by the responses to the teaching-learning survey intended to select the sample for this study, an academic paradigm shift which results in less student-teacher contact does not necessarily result in a faculty who is supportive of self-directed learning. Based on the results of this survey, 92% of the respondents were not supportive of a learner-directed approach to education. These findings are congruent with a study conducted by Wilcox (1990) at an Ontario university where 87% of the study sample was not supportive of self-directed learning.

The 8% of the sample who indicated instructional beliefs and values supportive of student-directed learning were those agreeing to eight or more of the 11 indicators of support in the teaching-learning survey. Of this sample, the majority--79%--taught programs associated with the "caring" professions such as nursing, dental hygiene,

developmental services, and community services. The remaining 21% taught in non-postsecondary programs.

By limiting the sample to those whose survey results indicated support of self-directed learning, access to student participants in other programs was likewise limited. Furthermore and not surprisingly, because the sample was drawn from programs related to the caring professions, the majority of the educator sample was female and all of the student sample was female. It would have been interesting to get the perspective of students from other programs who are perceived as self-directed yet whose educators are not supportive of self-directed learning and vice versa.

Summary

All of those interviewed believe that they either facilitate or engage in self-directed learning. However, none of the course objectives explicitly stated that self-directed learning was an intended learning outcome. Results indicate that students and educators have similar perspectives and operating definitions of self-directed learning although these perspectives and definitions do not coincide with the literature. Results do concur with the literature that stated there is a lack of clarity regarding the concept self-directed learning (Brookfield, 1988; Candy, 1991; Gerstner, 1990; & Jarvis, 1992).

The discussion of the results is presented under the following themes: institutional constraints and influences; roles and responsibilities; student autonomy and self-image; learning and teaching strategies; evaluation; student involvement in

course planning; descriptions of self-directed learning; and values and goals of education.

Institutional Constraints/Influences

With the implementation of an academic paradigm shift at Ontario College, there was an increased awareness among students and educators that students must take more responsibility for their own learning. While the basic premise of student responsibility was not questioned, in programs that are perceived to be content driven, the paradigm shift was not seen as an advantage but rather simply as causing time constraints. First, frustration was expressed by all educators and some of the students in terms of adequately covering the material in a classroom or lab setting in less time. There did not appear to be much curriculum adaptation to accommodate the paradigm shift. Although some referred to the need to do this, lack of time to prepare for the academic paradigm shift was cited as one of the reasons curriculum could not be adapted. Second, students were conscious of the increased workload assigned to their educators and the decrease in their available time for consultation, an option that was highly regarded by students and one they did not want to abuse. Third, because of workloads, both students and educators cited lack of time to think and reflect as a source of frustration. Brookfield (1990) argued that students intuitively know that reflection is necessary to balance their learning and yet "information overload" is a common problem, often because educators are constrained to meet the requirements established by accrediting bodies.

Furthermore, this shift did not translate into more learner control over their own learning; all were working with traditional, prescribed, time-based curricula, in many cases because of an accreditation body outside the institution which determines program curriculum. However, the president of Ontario College clearly stated as his vision "a redefinition of roles"--the focus of the institution would switch from teaching to learning. Although there were some opportunities for students to choose and implement their own learning strategies and establish their own evidence of learning--such as major projects--this was not because of the paradigm shift but rather the prior inclination of those educators whose values were in concert with some aspects of self-directed learning. Although the second statement in the college's mission statement refers to a learning environment which adapts to students' "changing requirements for quality lifelong learning," there was no concrete evidence of how the college intended to meet this goal, nor was there a definition of the term lifelong learning.

On the whole, the decrease in teacher-contact hours was accepted as a reality although concern was expressed by some educators that students may not be capable of structuring their time appropriately. However, in keeping with Taylor's (1986) findings, learners' expectations of teaching and learning required a reorientation and, as such, students believed in their ability to work independently of their educators. The student concerns that were expressed regarding the lack of contact with educators tended to hinge more on the uncertainty associated with final tests and exams when students are expected to have a prescribed knowledge base rather than their ability to

be in control of their own learning.

Likewise, educators' assumptions regarding teaching and learning required a reorientation to encompass nontraditional modes of teaching. However, although instructional development and training to redesign curricula were identified as necessary, these activities did not appear to be built into the paradigm shift. Furthermore, the collective agreement has established workload formulae which recognize traditional teaching assignments; this, too, needs to be addressed.

Roles and Responsibilities of Educators and Students

The student-educator relationships that participants described mirror the nature of the programs with which they are associated. Educators see their relationships with their students as a very important element in their students' education. When describing their roles and responsibilities, educators did not refer to themselves as experts nor as "knowledge disseminators" but rather as experienced professionals -- role models -- who are responsible to both their students and the clients and patients with whom the students are working as part of their clinical practice. Furthermore, all of the educators spoke of their students with genuine regard and stressed their commitment to encourage and support learning. However, there is a paradox inherent in this duality of roles: On one hand, the educators' primary respnsibility is to their students who must be given opportunities to explore and learn from their mistakes; on the other hand, the client's needs and safety must also be recognized and not jeopardized.

Since all are associated with the caring/service professions, it was not surprising to hear language that is identified with the health care professions. Educators saw themselves as guides, helpers and coaches whose primary responsibility is to facilitate and support student growth and independence. Furthermore, educators believe that they must be accessible in order to provide the support that students need. To effectively assist the development of student autonomy, Candy (1990) perceived as essential an educator-student relationship that is warm, empathetic, authentic and interpersonal.

Student participants also emphasized the importance of a relationship with their educators that was trusting and supportive. They perceive themselves as responsible for their clients when on field placement and they want to be trusted with that responsibility. Although it is recognized that educators have more experience, students do not see their educators as experts but rather as colleagues with more experience than they have. Although most stated that they rarely called their teachers at home, students want their teachers to be available for consultation. Those who had been given home phone numbers valued the trust in them that this gesture showed and they were careful not to abuse this trust.

The importance of a trusting, caring relationship was emphasized by Walsh and Maffei (1995) who found that students want to be treated fairly and with respect. Likewise, Brookfield (1990) suggested that the most significant and meaningful learning rests on trust. This is consistent with the literature on humanistic, invitational approaches to education.

Student participants value an educator's theory-based background in education. They indicated that an ability to teach fostered a more meaningful learning experience since such an educator is able to share knowledge and experience, is flexible and adaptable and is open to learning from the students. The perception was that many teachers who lack a theory-based background tend to be less flexible and more directive. However, underlying this perception is the credibility of the educator based on that person's experience and knowledge. Students agree that educators are not experts, but they also recognize that the educator knows more than they do. In this regard, they rely on the educator to guide them, but not direct them.

Brookfield (1990) referred to teacher authenticity which is built on trust and credibility and warns educators not to undermine their credibility by pretending to have little expertise in order to validate the students' experiences. Educator participants recognize that they have more experience and knowledge than the students but they also referred to the need to keep abreast of the field and, for the most part, they recognize that they learn from their students' experiences on clinical placement.

Student Self-image, Autonomy and Independence

Student participants, all of whom had been identified by their educators as self-directed learners, perceived themselves as successful, independent, committed learners who take initiative. Although they were not familiar with self-directed learning theory, they described themselves as capable learners and were not surprised by their mostly above-average scores on the SDLRS. Students had perceived the academic

paradigm shift as a situation requiring them to be "self-learners" and, in keeping with the model used for the teaching-learning survey, students felt actively engaged in their own learning and they were aware of the learning process.

The educators' perception of what they value in their students resembles the students' perceptions of themselves as learners. Committed, motivated, disciplined, independent and resourceful were among the descriptors most often used.

The student participants have developed a positive self-image of themselves as learners, a crucial psychological foundation for learning and independence. "Without self-confidence, students easily succumb to apathy, [and] dependency" (Purkey & Novak, 1984, p. 32). Furthermore, the SDLRS was designed to assess the degree to which individuals perceive themselves as possessing skills and attitudes associated with self-directed learning (Guglielmino, 1977). A factor analysis of the SDLRS indicated the presence of eight factors, among them were self-concept as an effective learner, initiative and independence in learning, and informed acceptance of one's own learning.

Candy (1991) differentiated among four concepts of self-directed learning and two of these are apparent in the students' perceptions of themselves as self-directed learners. Two of his concepts refer to personal attributes or characteristics: personal autonomy--a personal attribute of self-determination--and self-management in learning--the manifestation of a certain independence of mind. Candy argued that the development of self-direction must encompass the learner's self-concept rather than remain narrowly defined as placing learners in situations where they can have a

degree of self-directedness. In this regard, self-directed learning is seen as a psychological construct or a precondition: "To behave autonomously requires emancipation from...disabling self-images or stereotypes about the locus of control" (Candy, 1991, pp. 420-421).

Although her description of herself was in keeping with the above, one of the student participants indicated frustration and stress because of the amount of material she was required to learn on her own to prepare for the final exams. In her perception, the locus of control was clearly not hers.

Learning/Teaching Strategies and Settings

Experience plays an important role in the learning process for all participants of this study. Clinical experience, work experience, and volunteer experience are perceived to enhance classroom and text-based learning. Furthermore, professional experience was perceived to enhance the educators' credibility and currency of subject matter; also, teachers believed that their own practical experiences help them to understand the students' perspectives as they prepare for placement.

Essential to work-related experience was the opportunity to reflect on the experience; students were seen to have more meaningful class discussions after experience in the field upon which to reflect. This is corroborated in the literature on experiential learning: "Personal learning experiences are a powerful force in learning; to enter into dialogue with our own autobiography as learners is a helpful means to reflect on and reframe our practice as teachers and learners" (Boud, Cohen &

Walker, 1993, p. 19).

Kolb (1984) reported in his studies that learners who scored highest in the area of concrete experience as a preferred learning mode stated that their learning was enhanced by applying skills to real-life problems. These learners explicitly stated the need to be self-directed and autonomous. Student participants valued other experiences which they believed had an impact on their ability to take responsibility for their learning: some cited university experiences as an opportunity to learn independence and self-reliance and part-time jobs were seen as opportunities for growth.

Interactive, small group work and group projects are a common teaching and learning strategy among these participants. Because of the nature of the professions for which these students are preparing, educators believe that students benefit from the experience of working as part of a team. Again, the experiential nature of the work is important. Additionally, many of the group projects simulate situations students are likely to encounter in the workplace and thus serve as problem-solving models and opportunities to link theory to practice.

Although student participants value a peer support system, they were less enthusiastic about group projects, primarily because they report a task orientation--they are more focussed on the end product rather than the process of working through the project. Participants seemed to prefer being responsible for themselves and, to compensate for what they perceive as inconsistent standards among group members, they would take on leadership roles and organize their group projects so that their

standards are met.

On the other hand, student participants value interactive group discussion and support groups for study purposes and reflective discussion. Furthermore, they would seek out their peers for extra assistance before approaching educators. This type of interdependence was most evident in the learning packages supplied by the nursing program at Ontario College. Student participants regularly met with a group to work through case studies and problems posed in these packages. This activity was regarded by participants and the college community as one example of self-directed learning.

The underlying tension in group work appears to be how participants perceive the objectives. Because students are responsible for the direction and the range of the work, projects can create anxieties in terms of direction, progress and personal competence (Jaques, 1992). Student participants' objectives seem to be to complete a project in keeping with the standards they have set for themselves, in spite of the group. Educators' objectives appear to be the discussion and interdependence such group activity affords. Although self-directed learning theory states that interaction and peer interdependence are integral to the process (Boud & Griffin, 1988), it would appear that the nature of the group activity matters. Jaques (1992) cited two possible problems associated with group projects: First, group work often becomes a collection of individual, but related, tasks; and second, the uncertainties of project work, coupled with the problems of team work can be more than students can handle.

Although peer interdependence is integral to a student-centred approach to

learning (Boud & Griffin, 1988), group work often becomes a collection of individual tasks within the group (Jacques, 1992).

Evaluation and Grades

"In learning, competence is seldom experienced without some external indicator of success whether that be feedback, test scores, praise or rewards" (Wlodkowski, 1985, pp.213-214). At Ontario College, it seems that evaluation is usually under the control of the educators and it would appear to have a meaningful influence on student participants' perception of their competence. All students reported high grades and this was important to them as tangible evidence of their abilities as learners. Kasworm (1988) found that adult students who strongly identified with self-directed learning and life-long learning were academic achievers. In another study, course grades were positively correlated with strong self-concept and identification of components of self-directed learning (Dal Bello-Haas, 1992).

In a discussion of new approaches to education during a period of rapid change, Edel (1985) suggested that the traditional paradigm must be questioned to avoid what he coined the creeping phenomenon--"the objective of learning [is] the accumulation of high grades" (p.23). If lifelong learning is the goal, it has been argued in the literature that self-assessment and peer evaluation by students is necessary to develop student autonomy in learning (Knapper & Cropley, 1991; Knowles, 1980). While it is recognized that external constraints such as accrediting bodies demand formal evaluation structures, there is compelling evidence to suggest

that, for the learner to become increasingly autonomous, a large share of the evaluation must be turned over to the student. Moreover, collaborative, peer and self-appraisal are commonly used in the workplace.

Self-evaluation is used to some degree within the programs in this case study; however, there is evidence to suggest that, for the most part, this self-assessment does not represent genuine learner control. Student participants are invited to participate in self-assessment for clinical experience and lab work. In most cases, the final grade for this learning is a satisfactory or unsatisfactory and students reported that they work toward what they perceive as "high quality" in this case; the absence of a grade does not present a problem for them. However, students are not certain of the weight their self-assessments carry in the final analysis, but this is not a concern; they believe that the process is intended to facilitate reflection. Similarly, educators cited reflection as their goal for encouraging self-assessment; nevertheless, if a student's self-assessment is not congruent with the educator's assessment, then the student is perceived as needing some help to recognize problem areas. In other words, the student's assessment is invalid if it does not agree with the educator's assessment. Perspectives of self-assessment validity varied between educators and students. Student participants find self-evaluation difficult and they believe students are very hard on themselves; conversely, most of the educators believe that students might not be realistic and therefore will be easy on themselves. Knapper and Cropley (1991) cited a number of studies that have investigated whether students realistically assess their own work and found that differences in educator and student assessment are few.

Three of the educators reported the use of journals and a collaborative approach to evaluation for clinical placements; they believe that the responsibility for evaluation rests with the educator but journals and peer evaluation provide the educator with more input. Journals help students reflect on their learning and, as a result, they become actively involved in their own learning process. Brookfield (1990) suggested that this collaboration makes students feel attended to and respected. Yet, Candy (1991) warned that the possibility of "pseudoautonomy" may occur when educators attempt to facilitate learner control without genuine commitment. However, he added that the shift to learner control is a challenge to traditional practice and, therefore, both educators and learners are likely to find this difficult.

Student Input into Curriculum Design

The original mandate of the Ontario CAAT system was to provide skills training to meet the needs of an industrialized province (Ontario Ministry of Colleges and Universities, 1990). Ontario College, in its college calendar, states that it is career oriented and that curriculum is defined with the assistance of advisors from business, industry and community services related to individual program. Furthermore, several of the programs are also responsible to accrediting bodies. Although educator participants invite student input on an informal basis while a course is in session, the primary responsibility for planning the curriculum rests with the educators. Formal summative evaluation is used for all courses but, since this takes place at the end of the course, students' opportunity to effect change in the curriculum

is minimal. However, the student perception is that they have some opportunity for input when they evaluate a course at the end of a semester.

A common argument against learner involvement in curriculum design is that students do not know what they need to know. Jarvis (1992) argued, however, that some input into the curriculum can be negotiated: "Negotiated curriculum reflects the fact that learners often know what they want to learn, even if their knowledge is not as full or as sophisticated as their teachers'" (p. 128).

Descriptions of a Self-directed Learner

The student participants perceive themselves as self-directed learners and they believe that they are responsible for their own learning; therefore, they report that they do not rely on the teacher to direct them but rather on their own initiative and extra learning outside classroom instruction. Additionally, students are responsible for asking questions and thinking about their learning which serves as feedback to the educator. In other words, they must participate in the process of learning.

Educator participants agreed that self-directed students demonstrate initiative and responsibility for their own learning. Motivation and extra effort were other forms of evidence, attributes student participants used to describe themselves as "self-learners." In this regard, although curriculum objectives are set by the educator, the self-directed learners are perceived as establishing their own personal goals beyond the prescribed objectives.

Course structure and content were not seen to be the learner's responsibility;

however, in keeping with the literature, learner engagement is considered a contributing element to a student's competency in self-directedness. Educators reported that they try to set a supportive climate that fosters independence and problem solving, in and outside the classroom.

Candy (1990) described learner responsibility as a dynamic dimension within the equilibrium of control. Rather than regarding the teaching and learning situation as a dichotomy where either educators have control, or learners have control, he described a sliding scale whereby the educator yields control as the learner accepts more responsibility. Within the clinical settings, student participants who had demonstrated initiative and were seen to be confident and competent believed that they were being allowed responsiblity and control of their own learning. This perception is supported by Brookfield's (1988) notion that learning is a negotiated transactional process, neither wholly other nor self-directed. Within the programs represented in this study, participants are, in a sense, negotiating elements of control--self-directed and other-directed educational processes are interrelated.

Values and Goals of Education: A Conclusion

A central characteristic of the programs and participants involved in this study is the service-oriented professions with which each is associated. Because students are being trained for practice, knowledge acquisition is considered important but only one component of the learning continuum. Interpersonal skills, problem solving, critical thinking, and independence are other intrinsic goals which for the most part

are seen to be developed in clinical settings, labs and other experiences where students integrate theory with practice. The importance of discussions was highlighted, indicating the value of reflective practice. Furthermore, experiential learning was viewed as an opportunity for students to integrate curriculum.

The notion that professional education must offer more than academic and technical training if students are to be prepared for a lifetime of practice is supported in the literature. Competencies in reflective and practical knowledge are crucial so that students can deal with rapid change and individual, sometimes complex problems (Harris, 1993; Schon, 1987).

There was a recognition by all participants that a great deal of learning takes place on a daily basis outside the institutional setting: through reading, discussion with colleagues and practitioners, and experience. Both student and educator participants described the learning they engage in apart from formal courses. Educators and students alike value learning and they stated their intention to continue learning. Although the structure of the learning that takes place within the prescribed academic and technical skills courses is traditional and teacher directed, participants value and indeed engage in self-directed learning within the "personally autonomous" and "assisted autodidactic" domains of self-directed learning (Candy, 1991) as part of their professional and future practices. "While knowledge acquisition is an important component of the continuum to link professional education and practice, student development of effective mechanisms for self-directed, lifelong learning is key to the cohesiveness of the continuum" (Cavanaugh, 1993, p. 115). This would appear to be

the implicit theory of practice for participants of this case study.

One sentence in Ontario College's Mission Statement states that "We will provide our students with an accessible, dynamic and supportive learning environment which adapts to their changing requirements for quality lifelong learning experiences." However, there did not appear to be an explicit description of how this would be facilitated. It appears from this study that the term lifelong learning has been used to describe familiar activities and programs, a current favourite theme used in institutional publicity (Knapper & Croppley, 1991).

Implications

While it is recognized that students cannot be fully self-directed within the constraints of an educational institution, there is evidence that suggests that elements of self-direction and learner control can be supported in terms of process, course structure, and evaluation. Furthermore, it has been demonstrated in other studies that problem-based (Ryan, 1993) and competency-based education can be organized according to self-directed principles, particularly within the health education fields (Ash, 1985; Lowry, 1992). Although Ontario College explicitly promotes the concept of lifelong learning, faculty development aimed at promoting and facilitating self-directed learning was lacking. It was apparent that educator participants were not resistant to a non-traditional, learner-centered education, but most had simply not been exposed to or considered alternative strategies.

Based on the results of the teaching and learning survey, there was evidence to

suggest that the majority of faculty were resistant to the implementation of a learner-centered paradigm shift (Grabove, 1994). Faculty development could help build confidence as educators learn to cope with change. Educators need to feel empowered and that they have a hand in the implementation of change that will impact on their role in the classroom. Studies have shown that changing a teaching approach is most likely to occur if the change is supported by peer group interaction (Amundsen, Gryspeerdt & Moxness, 1993). At Ontario College, faculty felt the academic paradigm shift had been imposed with minimal input from educators.

In a post-secondary institution, faculty are likely to consider themselves more as subject experts than teachers; this is particularly true in a community college which is staffed by faculty drawn mostly from industry. Although the CAAT system offers instructional development workshops and courses, it has been noted (Amundsen, Gryspeerdt, Moxness,1993; Knapper & Cropley, 1991) that the most common focus for faculty development has been on teaching techniques such as how to develop a course outline, how to organize lectures or construct exams rather than on developing a philosophy of practice to foster lifelong education. Furthermore, Amundsen et al. (1993) reported on studies which indicate that changing a teaching process is a personal process and is only likely to occur if the change is perceived as meeting an identified need. Not surprisingly, they also reported that new practice evolves in terms of how closely it fits with previous practice rather than how effectively it enhances learning. The educator participants in this study cited their own experiences as learners and as practitioners in the service field related to their teaching as having

been the most influential in their teaching practice.

That differences exist among faculty across disciplines in terms of orientation, attitudes, values and beliefs is corroborated by McKeachie, Cross, Donald (cited in Theall, 1993) and Stark, Lowther, Bentley and Martens (1990). This could explain the support for self-directed learning among students and educators in health and social sciences where students are engaged in clinical and field practice which involves a problem-based approach to learning.

Another determining influence could be gender. Not only are the caring professions reputed to use a more client-centered approach to education (Curry, Wergin and Associates, 1993) but they have a high proportion of women. Belenky, Clinchy, Goldberger and Tarule (1986) suggested that gender should be taken into account when designing instruction. Their findings in a study of women's ways of knowing found that influential learning occurred when educators trusted their students and worked with them collaboratively.

The vision inherent in CSAC's Guidelines (1994) would indicate that as learning outcomes become the emphasis of what students will be able to do at the completion of a program, how, when and where they do the learning will be less important. This, in turn, should encourage a more flexible and student-directed approach to learning. Moreover, the recommendations of the Council of Presidents of Ontario CAATs (ACAATO, 1995a) has shifted the focus toward learner-centered education and encouraged debate about traditional educational effectiveness.

On the other hand, the implementation of system-wide program standards and

accreditation could negate the opportunity for student and faculty autonomy, both key elements in the development of more student-centred, flexible curricula. To foster learner and educator autonomy, Misgeld (1985) emphasized the need for collaboration and discussion of subject matter. With reference to what he coined "the instructional objectives movement", Misgeld (1985) argued that "the learners appear to be only objects of instruction. They are not the constructors of the learning process, or co-initiators of the learning experience" (p. 90). The demands of external agencies would imply a loss of autonomy.

Other key elements that are missing in Ontario College are time and guidance to implement change. The need for restructuring did not seem to be questioned by the participants, nor was the inherent notion of self-directed learning; however, it is evident that most educators continue to do the same with less. As noted in The Preliminary Report of the Task Force on Quality Education in a Fiscally Responsibly Manner (Feb., 1994), the colleges must find time to institute change and must create an environment that is supportive of change. This particular college implemented a major change in curriculum structure with very little time and instruction to develop alternative strategies. Internal documents would suggest that discussion and changes occurred over less than one academic year.

Furthermore, although it was understood that students would have less teacher-contact time, a question is raised whether any curriculum or college-wide objectives explicitly emphasized that students would develop those skills associated with self-directed learning. As argued by Ryan (1993), course objectives should be overt in

their expectations that students become self-directed learners if they are expected to shift from dependent to independent learners. Students understood that they were responsible for more of their own learning, and they often used the term self-learning to describe the process they perceived as self-directed learning. Students did not have a clear definition of the concepts inherent in the process of self-directed learning. However, it was understood that this learning was related to prescribed, established curricula. Students, as well as faculty, require guidance to learn to be self-directed and to understand the implications of self-directed learning.

Definitions of self-directed learning must be clarified. Participants in this study thought self-directed learning was synonymous with independent study and self-determination. Student participants with university experience perceive the teaching at the college more favourably than at the university; however, they cited the university experience as influencing them in self-directedness, an attribute they see as positive.

The terms lifelong learning and learner-centred institution need to be explicitly defined and the implications inherent in these terms need to be clarified. Using the terms and implementing an academic paradigm shift does not necessarily translate into practice or agreement. "Much teaching in higher education is of the traditional didactic sort, [and] much learning is passive" (Knapper & Croppley, 1991). Based on the apparent self-directed nature of the student participants' experiential learning in this study, perhaps closer links and student involvement with community agencies would foster new approaches to teaching and learning.

There seemed to be an assumption at Ontario College that an academic paradigm shift which encouraged self-directed learning would make fewer demands on educators. Although student participants in this study were perceived as self-directed, it is apparent they require instructor time and support. However, both students and educators were conscious of the lack of time available for such consultative support.

The results would indicate that further research is required to investigate the relationship between theory and practice. Since all of the educators indicated that they try to foster independent thinking in their students, what prompts responses which would signify a teacher-directed approach to learning for knowledge-based courses and a self-directed approach for experiential learning? Little research deals with postsecondary teacher planning and thinking (Menges, 1993).

This study raises questions which require further investigation:

1. If educators know about and are sympathetic to the principles of self-directed learning, why aren't they practicing it?

2. If college education is driven by fiscal restraints, will self-directed learning be able to be effective?

3. Despite the volume of literature regarding self-directed learning, is it necessarily the best approach for all college students?

4. As long as learning practices are mandated by institutional priorities and employers, can self-directed learning ever exist in a CAAT system?

5. Is there not a paradox inherent in the self-directed learning process if such a process is directed?

Recommendations

The institutional implementation of an academic paradigm shift cannot be ad hoc--it requires that administrators, educators and students be educated to learn theoretical concepts and implications in order to ease fears and to empower all sectors to collaborate in the teaching and learning process. If there is to be a successful paradigm shift which supports self-directed learning, there are several issues which must be considered.

The first consideration which must be addressed is that of declining resources. Systems of higher education are struggling financially and it is my belief that the successful implementation of system-wide, self-directed learning is not supportable. Implementation of a true paradigm shift would be costly in terms of time and financial commitment required to educate all of those implicated in the teaching and learning process. In addition, to overcome resistance, extra time and education would be required. Even if expenditures were deemed appropriate, policy makers would have to be convinced that such an investment would ultimately cost less and this is not necessarily the case. It is apparent that a variety of teaching roles other than teacher contact in front of a class is necessary to facilitate self-directed learning and many of these activities could be costlier forms of teaching since the educator might be consulting with fewer students at any given time.

The second issue which must be considered is faculty development. In this case study and that of Wilcox (1990), few educators seemed interested in supporting self-directed learning. Those who were interested and supportive seemed to lack a

theory-based background or training in how to facilitate self-directed learning within an institutional setting. Educator participants voiced the need for more faculty development and renewal. Jones and Geis (1993) indicated that due to budgetary constraints, there have been some reductions in the Ontario CAAT faculty development units. Furthermore, they argued that faculty development may have to consider organizational development as a parallel focus of attention in order to align organizational goals with individual development interests. Educators need support and training in self-directed learning principles if they are to successfully facilitate and promote learner options and control over elements of the learning process.

Students also need some preparation if they are to successfully adapt their learning strategies to be self-directed. Candy (1991) argued that the socializing influence of the educational system has prepared students to be passive learners. Therefore, students would need to be guided in developing an increased awareness of the learning process and self-directed learning competencies.

Institutional policies that have become tradition need to be revisited in order to recognize and foster self-directed learning. This, in turn, would require that policy makers are educated in self-directed learning concepts in order to support this teaching and learning process. Administration and the policy makers at the college must adopt the notion of learning beyond and outside the existing institutional structure. "If self-direction is narrowly defined as increasing learner control of instruction, then it is clearly an institutional matter" (Candy, 1991, p. 419).

The last issue that must be considered is public perception of self-directed

learning and lifelong learning strategies. External advisors and interested members of the community would also require education to understand how the facilitation of self-directed learning competencies advances skills in lifelong learning and how such skills correspond with the needs of industry and society.

Conclusion

Brookfield (1990) argued that research, theory and philosophies of adult learning can contribute to higher education practices. It is evident that the implementation of the academic paradigm shift at Ontario Colleges has been somewhat influenced by the adult education literature. However, Knapper and Cropley (1991) emphasized that the implementation of lifelong learning principles requires changes in the practices of higher education and Vision 2000 suggests that the facilitation of lifelong learning requires flexible, student-driven opportunities.

The institution in this case study raised awareness of the learners' role and responsibilities through the implementation of an academic paradigm shift; however, there was little evidence to suggest that the learning process structure is either student-driven or flexible. Although educator participants who advocate principles of self-directed learning created a climate of support and opportunities for active learning involvement, the structure of the curriculum is seen to be the responsibility of the educator. This assumption is not questioned by the educators or the students. Nevertheless, among case study participants, students were encouraged and supported in assuming responsibility for experiential learning outside the classroom structure.

Linking practice with knowledge and theoretical acquisition seems to be important for participants of this study. Student participants indicated a preference for a blend of learning opportunities: lectures were preferred for content-based learning; discussion was deemed important because of the participation and opportunities for reflection; and clinical or field placements afforded active learning opportunities where learners were on their own and, thus, the objective of developing self-directed learning strategies was important. The participants in this case study are facilitating or learning to be caregivers whose primary responsibility is to encourage clients to take responsibility for themselves; this is comparable to the role of the educator whose primary responsibility is to facilitate the development of student competence in lifelong learning.

Students selected for this study were perceived by their teachers to be self-directed learners. These students seemed to have been selected because they demonstrated self-determination as learners, a concept of self-directed learning labelled by Candy (1990) as personal autonomy. Additionally, student participants described their self-directed learning opportunities beyond the context of the college structure which would support the notion of situational variability in self-directed learning (Candy, 1991). In clinical and field placement situations, student participants believed they were responsible for their clients and, in this regard, have some freedom of choice. Furthermore, learning experiences outside the domain of college-associated credits were cited by participants as opportunities for learning.

The sample for this case study began with a purposeful sample of six educators

who were selected based on the results of a teaching and learning survey designed to measure instructor support for self-directed learning. A central characteristic of participants in this study is the service-oriented professions with which each is associated. Although a maximum variation sampling strategy was used (Patton, 1990) to ensure representation from two of the college's campuses and from a variety of programs, of the 8% of the respondents who taught in post-secondary programs and who indicated support of self-directed learning, all taught in programs associated with caring and service professions. Facilitation and practice of self-directed learning principles seem to be embraced as part of the experiential and service nature of these programs rather than as part of the curriculum structure within traditional college classes. Thus, it would appear that the sample educators' support for self-directed learning which was indicated on the teaching and learning survey had more to do with values and practice as caring professionals outside the structure of the college system. If the objective of the academic paradigm shift is to shift from a teacher-directed to a learner-directed paradigm, the policies and the structure of the system must be questioned. It would appear the system structure is blocking change.

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Appendix A

Teaching and Learning Survey

TEACHING AND LEARNING SURVEY

PART ONE - BACKGROUND INFORMATION

1. In what discipline(s)/programme(s) do you teach?

_____ _____

2. In which of the following areas do you teach?
   post-secondary ☐ non post-secondary ☐

3. Which level(s) do you teach most frequently?
   year 1 ☐ year 2 ☐ year 3 ☐

4. How long have you taught at the community college level?
   1-5 yrs .☐ 6-10yrs. ☐ 11-20 yrs.☐ over 20 yrs.☐

5. In total, for how many years have you been a teacher?
   1-5 yrs.☐ 6-10 yrs.☐ 11-20 yrs.☐ over 20 yrs.☐

6. Indicate which of the following most closely apply to your study of the theory of education:
   college courses ☐ undergraduate courses ☐ graduate courses ☐ post-graduate courses ☐

   inservice courses ☐ extracurricular readings ☐ none ☐

   other _____
   (please describe)

7. a) Have you ever studied the theories and principles of adult education?
   yes ☐ no ☐

   b) If no, please move to PART TWO of the survey. If yes, please circle approximate numbers of courses, workshops or readings under the following categories:
   college courses 0 1 2 3 4+ undergraduate courses 0 1 2 3 4+ graduate courses 0 1 2 3 4+

   inservice courses 0 1 2 3 4+ extracurricular readings 0 1 2 3 4+ post-graduate courses 0 1 2 3 4+

   other _____
   (please describe)

PART TWO - TEACHING AND LEARNING PRACTICES

Please indicate how much you agree or disagree with the following statements in terms of your role as an educator in a community college. If your practice varies because of class size, course level, or other variables, indicate your <u>usual</u> or <u>preferred</u> practice.

		Disagree strongly	Disagree	Agree	Agree strongly
A)	*STRUCTURE*				
1.	I allow course structure to be influenced by students' suggestions.	☐	☐	☐	☐
2.	I try to offer my students a choice of topics to be covered.	☐	☐	☐	☐
3.	I share the course planning process with my students.	☐	☐	☐	☐
4.	I set due dates for assignments, students may request changes.	☐	☐	☐	☐
5.	Students set due dates for assignments within guidelines that I set.	☐	☐	☐	☐
6.	My students design many of their own learning activities.	☐	☐	☐	☐

(Ove

		Disagree strongly	Disagree	Agree	Agree strongly
7.	I set the direction for student learning.	☐	☐	☐	☐
8.	I want my students to be in control of the learning situation.	☐	☐	☐	☐
9.	I advise my students about what they should learn.	☐	☐	☐	☐
10.	I try to maintain control of the learning situation as much as possible.	☐	☐	☐	☐
11.	I prefer to let course structure emerge as the course progresses.	☐	☐	☐	☐
B)	***OBJECTIVES***				
1.	Course objectives are set by the students with my input.	☐	☐	☐	☐
2.	I set course objectives.	☐	☐	☐	☐
3.	I hand out course objectives and ask students to suggest changes, additions, and deletions.	☐	☐	☐	☐
4.	I suggest that students modify course objectives to meet personal learning needs.	☐	☐	☐	☐
C)	***COURSE CONTENT***				
1.	My primary role is to deliver course content.	☐	☐	☐	☐
2.	Course content is best determined in consultation with my students.	☐	☐	☐	☐
3.	I feel it is my responsibility to determine course content.	☐	☐	☐	☐
4.	I will abandon my plans if the students want something else.	☐	☐	☐	☐
5.	Content is prescribed by programme guidelines.	☐	☐	☐	☐
D)	***LEARNER CHARACTERISTICS***				
1.	I assess what students want and need to know.	☐	☐	☐	☐
2.	I consider personality and learning styles.	☐	☐	☐	☐
3.	I adjust the course to suit student characteristics.	☐	☐	☐	☐
4.	I try to foster independent thinking in my students.	☐	☐	☐	☐
5.	I try to provide opportunities for students to reflect upon their learning.	☐	☐	☐	☐
E)	***EVALUATION***				
1.	I want students to set the criteria for their evaluation.	☐	☐	☐	☐
2.	I am in the best position to judge student efforts.	☐	☐	☐	☐
3.	My students evaluate some of their own activities and negotiate the grade with me.	☐	☐	☐	☐
4.	My students suggest/design their own evaluation activities.	☐	☐	☐	☐

Thank you for completing this survey. Comments are welcome:

Appendix B

Eigenvalues, Percentage of Variance, and Cumulative Percentage of Variance for Each Identified Factor

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage of Variance
1	7.98	27.5	27.5
2	3.06	10.6	38.1
3	2.01	6.9	45.0
4	1.46	5.0	50.1
5	1.30	4.5	54.6
6	1.22	4.2	58.8
7	1.04	3.6	62.4
8	1.01	3.5	65.8

Appendix C

Rotated Factor Matrix

	Question	Factor 1 Course Structure	Factor 2 Student Input	Factor 3 Individual Differences	Factor 4 Educator Control
A1	Allow course structure to be influenced by students' suggestion	.58		.37	
A2	Try to offer choice of topics	.75			
A3	Share the course planning process with my students	.70			
A4	Due dates are set, students may request changes	.31			
A5	Students set due dates for assignments within set guidelines	.49			
A6	Students design many of their own learning activities	.39		.59	
A7	Set direction for student learning				.64
A8	Want students to be in control of the learning situation				
A9	Advise students what they should learn				.72
A10	Try to maintain control of learning				.35
A11	Prefer to let course structure emerge as the course progresses		.46		
B1	Course objectives are set by the students with educator's input	.31	.57		
B2	Course objectives set by educator				
B3	Hand out objectives and invite changes		.85		

B4	Suggest students modify objectives to suit their needs		.71		
C1	Primary role is to deliver course content	.61			
C2	Content best determined in consultation with students	.60	.37		
C3	Determination of course content is educator's primary role	.34		.51	
C4	Will abandon plans to meet students' requests	.45		.33	.49
C5	Content prescribed by program guidelines				-.60
D1	Assess what students want and need	.35		.37	-.46
D2	Consider personality and learning styles			.79	
D3	Adjust courses to suit student characteristics			.69	
D4	Try to foster independent thinking				
D5	Try to provide opportunities for reflection of learning				
E1	Want students to set evaluation criteria	.38	.52	.32	
E2	Educator in best position to judge students' efforts				
E3	Students evaluate some of their activities and negotiate a grade with educator	.46		.31	
E4	Students suggest/design own evaluation activities	.35	.43		

A = Structure
B = Objectives
C = Course Content
D = Learner Character
E = Evaluative

Appendix D

Inter-item Correlations: Structure

	QA1	QA2	QA3	QA4	QA5	QA6	QA7	QA8	QA9	QA10	QA11
QA1	1.0000										
QA2	.5014 **	1.0000									
QA3	.4395 **	.4191 **	1.0000								
QA4	.3548 **	.1901	.1796	1.0000							
QA5	.3324 **	.3681 **	.3462 **	.1808	1.0000						
QA6	.4174 **	.3378 **	.3719 **	.2138 *	.3624 **	1.0000					
QA7	.0995	.0430	.2395 *	.2410 *	.2327 *	.1753	1.0000				
QA8	.2242 *	.1944	.1455	.0955	.2988 **	.2446 *	.0522	1.0000			
QA9	-.1127	-.0297	-.0209	.0851	-.0117	.0424	.3940 **	-.0794	1.0000		
QA10	.1955	.1302	.1308	.2087 *	.2771 **	.2168 *	.3404 **	.2049 *	.3932 **	1.0000	
QA11	.2223 *	.1054	.2592 **	-.0992	.1531	.2443	-.0214	.2512 *	-.1251	-.0768	1.0000

* $p < .01$

** $p < .001$

QA7, QA9, QA10 - Not supportive of SDL

Appendix D (continued)

Inter-item Correlations: Objectives

	QB1	QB2	QB3	QB4
QB1	1.0000			
QB2	-.3406**	1.0000		
QB3	.4460**	-.1923	1.0000	
QB4	.3994**	-.1588	.5086**	1.0000

* $p < .01$

** $p < .001$

Appendix D (continued)

Inter-item Correlation: Course Content

	QC1	QC2	QC3	QC4	QC5
QC1	1.0000				
QC2	.4182**	1.0000			
QC3	.3444**	.4546**	1.0000		
QC4	.4402**	.4290**	.4306**	1.0000	
QC5	-.1907	-.2019*	-.1923	-.2709**	1.0000

* $p < .01$

** $p < .001$

QC1, QC3 - Not supportive of SDL

Appendix D (continued)

Inter-item Correlations: Learner Characteristics

	QD1	QD2	QD3	QD4	QD5
QD1	1.0000				
QD2	.2066*	1.0000			
QD3	.3078**	.5813**	1.0000		
QD4	.1208	.3378**	.2512*	1.0000	
QD5	.2394*	.3411**	.2236*	.7430**	1.0000

* $p < .01$

** $p < .001$

Appendix D (continued)

Inter-item Correlations: Evaluation

	QE1	QE2	QE3	QE4
QE1	1.0000			
QE2	.4015**	1.0000		
QE3	.4674**	.2996**	1.0000	
QE4	.5974**	.2491*	.6303**	1.0000

* $p < .01$

** $p < .001$

QE2 - Not supportive of SDL

Appendix D (continued)

Inter-item Correlations of Six Indicators Not Supportive of SDL

	A7	A9	A10	C1	C3	E2
A7	1.0000					
A9	** .3940	1.0000				
A10	** .3404	** .3932	1.0000			
C1	** .3228	.0549	** .3875	1.0000		
C3	* .2236	.1880	** .3513	** .3444	1.0000	
E2	** .2630	* .2177	** .5071	** .3451	** .4296	1.0000

* $p < .01$

** $p < .001$

Appendix E

Research Proceedings

Data	Proceedings
Spring, 1992	- Discussed concept of research with Academic VP at my college for referral to sample college.
Spring, 1992	- Met with Academic VP at sample college to discuss research and gain access to the college -- permission granted and a contact person was introduced.
Fall, 1992	- Telephone meeting with contact person to discuss research and organize survey dissemination and collection with secretary.
Fall, 1992	- Proposal accepted by thesis committee.
Fall, 1992	- Proposal accepted by ethics committee.
November, 1992	- 317 surveys mailed out.
December, 1992	- First batch of surveys received.
January, 1993	- Followup/reminder to those not responding.
February, 1993	- Closing date to receive surveys.
February, 1993	- Survey data entered and analyzed on SPSS.PC for sample selection.
February, 1993	- Manual cross-tabulation of those with 9 or more indicators of support of SDL.
February, 1993	- Educators selected as first choice--letters sent.
March, 1993	- Follow up phone call to educators and interview dates established. - Meetings and interviews set up with contact person. - Rooms/offices organized for interview--neutral with no phones.
March, 1993	- Educator interviews completed. - Letters sent to 12 students.
March/April, 1993	- Students contacted. - Meetings set up to conduct workshop, discuss research, etc. and set

up interview dates and times.

April, 1993 - Key informant interview.

May/June, 1993 - Student interviews completed.

Spring/Summer, 1993 - Interviews transcribed verbatim.

Fall, 1993 - Data reduced, content summaries completed and mailed to participants as member checks (for accuracy and clarification).

Winter, 1994 - Responses/member checks received from 7 out of 13 participants to confirm, clarify data.

Spring, 1994 - Further analysis of quantitative data completed for descriptive statistics.

Summer, 1994 - Analysis of qualitative data - coded, organized, cut and paste.

Fall/Winter, 1994 - Reconstruct, synthesize and begin interpreting data.

Summer, 1995 - Begin writing thesis.

Appendix F

INTERVIEW GUIDE FOR EDUCATORS

1. How many years in teaching
   - college
   - other

2. Description of current courses and objectives of these courses. How are these objectives carried out?

3. Description of teaching style
   - for traditional-aged students and adult students
   - for various levels
   - for different courses
   - for different programmes

4. Philosophy of education
   - role of educator
   - role of students
   - other roles that matter

5. Influences to your approach to teaching
   - teaching experiences
   - educational background (courses, workshops, inservice...)
   - industry/work experiences
   - other / role models

6. Comparison of philosophy and teaching style to-day with philosophy and teaching style when you first began teaching.
   - have philosophy/teaching style changed?

7. Have values or assumptions regarding education changed? What accounts for this change?

8. What do you think of self-directed learning?
   - strengths
   - weaknesses
   - advantages/disadvantages for student and educator

9. On what are these beliefs based?

10. Define/describe self-directed learning.
    - role of the educator
    - role of the student
    - role of the college
    - other influences

11. Is self-directed learning possible with traditional-aged students in a college setting?

Elaborate... What did you mean by..
When... Where... What... How... Who...

12. Organization of the teaching/learning process to facilitate SDL.

13. Comment regarding student involvment in the following areas:
    - course structure
    - course objectives
    - course content
    - evaluation

14. How does a leaner demonstrate self-directedness? ...activities, interactions, projects, etc.

15. How have you been of some influence in encouraging SDL?

16. How do you believe students feel about taking more responsibility for their own learning?

17. Can you recall a course/class/workshop/reading that has stayed with you and influenced your own teaching style/philosophy?

18. Describe your own personal educational background?

    HIGH SCHOOL COLLEGE BA/BED MA/MED
    PHD/EDD PROFESSIONAL DEGREE/CERTIFICATE

18. What is your age range?

    22-29 30-34 35-39 40-44
    45-49 50-54 55-59 60-65

****

ASK FOR NAMES OF TWO STUDENTS WHO ARE CONSIDERED TO BE SELF-DIRECTED LEARNERS. ASK FOR EDUCATOR'S PERMISSION AND PARTICIPATION IN ENCOURAGING STUDENT INVOLVEMENT IN THIS STUDY.

INTERVIEW GUIDE FOR STUDENTS

1.a) Number of years as a post-secondary student and brief educational history since high school. Include informal as well as formal learning.

b) Age Range 17 -20; 21 - 23; 24 - 26; 27 - 29

---

2. Description of self as a learner/student
   - objectives - short-term and long-term
   - activities, events that relate to learning
   - in the classroom, in labs, in teams and independent learning
   - learning preferences & routines
   - how are objectives carried out?..examples
   - differences in learning style for different courses
   - comparison of learning preferences and routines to peers

---

3. Philosophy of education
   - role of educator
   - role of the learner
   - other roles
   - what is learning?

---

4. Values and assumptions regarding education at the college level. Have any of these values or assumptions changed since you became a college student?

5.a) What and who influences your approach to learning?
   - work experiences
   - teachers
   - courses
   - peers
   - institutional structure
   - peers
   - role models
   - family
   - readings

b) Do you have a different approach to learning with different educators or different subject areas? Discuss.

---

6. Has learning style changed over the past few years?

---

7. Describe/define self-directed learning
   - role of student
   - role of educator
   - role of the college
   - other

---

8. How do you believe educators feel about students taking more responsibility for their own learning?

---

9. What do you think/feel about SDL?
   - strengths
   - weaknesses
   - advantages/disadvantages

---

10. You have been identified as a self-directed learner
   - why?
   - describe aspects of your learning that you would call self-directed (activities, interactions, projects...)

---

11. a) What and/or who has influenced you to be a self-directed learner?
    b) How? examples?
    c) Recent examples?

---

12. Are you involved in designing or making decisions about course structure, objectives, content or evaluation?

---

13. How important do you think it is for an educator to have an educational background in education?

---

14. Do you recall an educator who has explained his/her philosophy of education as encouraging or facilitating more SDL among students?

Appendix G

Member Check Letter

Brock University

Faculty of Education
Graduate and Undergraduate Studies

St. Catharines, Ontario
Canada L2S 3A1

Telephone (416) 688-5550 Ext. 3340
Fax (416) 685-4131

Jan. 25, 1994

Name
Professor

Dear

I hope after all this time you remember me! I am still working on my M.Ed. thesis; however, since I last corresponded with you, I took a small and much needed break before returning to teach full-time. Although I am very happy to be back in the classroom, I had not fully anticipated the impact this would have on my research...namely, insufficient time (and energy!) to continue working at the same pace.

After completing the transcripts of all of my interviews last spring, I began the first phase of analysis. As promised at the end of our meeting, I have sent you a copy of a summary of our discussion together.

Could you please have a look at the attached Contact Summary to ensure there are no inaccuracies? If there is anything that is wrong or that you wish to comment on, please make those corrections or comments directly on the sheets.

I recognize that some things will have changed since we last spoke; however, I am interested in the accuracy of this summary in terms of your situation at the time of our meeting.

As I was summarizing the transcript, a few questions came to mind and are listed on the last page of the attachment under "Notes and New Questions". Would you please jot down the answers to these questions directly on that page?

As I indicated earlier, anonymity is assured in the final analysis. However, since descriptions of experience, age, gender, etc. are very important to how you see yourself as an educator, I wish to know how much of the biographical description you would feel comfortable with me using. If you are uncomfortable with any of the personal descriptors, please cross them out on page one, or make any corrections.

Please return the "corrected" version, with your comments, in the self-addressed envelope at your earliest convenience. If no changes are necessary, I would appreciate a reply informing me of this.

Again, thank you for your participation. I will let you know when the thesis is complete and will be happy to make a copy available to you at that time. I look forward to hearing from you soon.

Yours sincerely,

Valerie Grabove.

CONTACT SUMMARY SHEET E1

CONTACT - EDUCATOR 1, 11 YEARS FULL-TIME TEACHING NURSING AT THE COLLEGE & 7 YEARS PART-TIME BEFORE THAT AT THE HOSPITAL
- DIPLOMA, EDUCATION OF PUBLIC HEALTH
- B.Sc, NURSING EDUCATION
- COLLEGE TEACHING CERTIFICATION (WESTERN REGION - Orientation to College Teaching)
- FEMALE, AGE 49 YEARS

SITE - CAMPUS
PROGRAM/COURSES - NURSING, MATERNITY NURSING, PSYCHIATRIC WORK,
DATE OF INTERVIEW - THURS., MARCH 18, 1993

1/ MAIN ISSUES/THEMES

* experiences that have had an impact on the educator's educational and career paths
* philosophy and approach to teaching & learning
* current courses and objectives
* still learning and exploring new areas through workshops, books and special documentaries
* teaching style and how it varies from course to course and among various age groups
* student input and feedback
* philosophy of education is one that considers students as learners who are allowed to make mistakes: "let the student learn" and learn from mistakes
* roles of teacher and students
* discussion/definition of a good teacher
* influences to teaching approaches
* effect of the paradigm shift and its influence if any on teaching and learning
* how teaching approach, values and assumptions have changed since first started teaching
* definition of SDL
* SDL essentially means learning what you want to learn
* strengths and weaknesses of SDL "when you say SDL, I'm assuming they've identified a course they want to study" (p.33)
* SDL possibilities within the program
* volunteer community work can be seen as self directed
* student study groups and group projects; proved

successful during a faculty strike.
* the nurse as a professional
* student involvement in course evaluation and course structure is mainly summative
* course change is possible if there are few faculty teaching a particular course; the teacher has more autonomy to act on student suggestions
* student suggestions happen more in the clinical setting
* the use of student journals as part of the evaluation process

I am more committed than ever to empower students and to use humour everywhere possible.

2/ SUMMARY OF INFO. RE. TARGET QUESTIONS

* worked for a couple of years after high school before attending University; pursued a diploma in Public Health Education at the advice of employer at the time who advised against Health Administration

* this diploma provided basic information on the teaching/learning process

* always felt young; still feels very young "I don't take things really seriously"

* realizes now that she probably wouldn't have been successful in Administration..."I don't dress well and I ...don't carry things down to the letter"

* after getting a degree, "I really got tired...I didn't want to learn anything more".

* found a job after graduation in public health; notes that this was a very stressful time personally since her family also had to be settled and there were a lot of pressures. However, believes very strongly that "life teaches you more than schooling does"

* discovered that working in the Primary Care Unit of the hospital was not suitable; it was after this that she got a job to replace a maternity teacher who retired

* whenever, E1 has started teaching in an unfamiliar area, or one with which she has lost touch, she will take some courses and do some practical work

* "I will always go back and do some time in it"...to get to know the staff, the routines and the philosophy of how they approach their care." She believes that you must get along with others in order to do a good job.

* is currently teaching psychiatric nursing and this is probably where she is most comforable and feels most competent; "It's what I like to study, to know what's new". Started up a psychiatric course in the "old" program before she had her second child so feels she has now come "full circle"

* also teaches maternity nursing with a focus on the newborn; objectives overlap with the clinical component, ie. safety and routine care of the newborn and assessment skills. "[It's a challenge] to find a textbook that supports that information"

* in the clinical supervision of students in the maternity ward, her objectives are safety and current trends; "try and get the kids to think about the fact that they're the future, so not to get stuck in [this way as the only way] p.10

* likes to influence people to think differently and more futuristically...and "to try and get people to

think more about the patient"...the client is the most important part of the whole scenario

* nurses are important in giving support and encouragement but they should not be taking all the responsibilities, ie. it's important to get the baby involved with the mom and dad and grandparents right away

* is teaching psychiatric nursing in the classroom instead of clinical and is "trying to find out what I've been doing that's good there"

* considers herself a beginner, still with much to learn in all the areas

* learns by going to as many workshops as can be found that are inexpensive and reasonably close to home, and by looking for books, videos and special programs broadcast on public broadcasting

* is exploring areas of alternative healing processes and holistic healing

* in terms of teaching style, main differences are apparent in the classroom: if something is new and being taught for the first time, she returns to the basics of setting up objectives and sticks close to the book to ensure everything is covered. The next time the course is taught, will use more judgement to get rid of aspects, or decide what students can learn on their own and "then I focus on what I'm interested in"

* "As I get more comfortable with [a course], then I can break down my own inhibitions".(p.14)

* tries to make the lesson a "living experience", so that students can relate to the situation and then talk to their families about it too.

* believes that faculty at the Windsor Campus has accomplished using the study guides as they were designed, that students would do all of their research in advance and teachers would be available only as a resource

* at this campus, it seemed that students were leaving after only a half hour or an hour and this was not comfortable "for our bosses" (p.15). Faculty are expected to be in classes until the end of the timetabled hour. Therefore, "there is group constraint to meet expectations and students not wanting to be here." Yet, believes that students do not always know what they don't know.

* therefore, has decided to be there for the whole 2 hours and make the experience as worthwhile as possible for the students

* students have input into changing objectives on an informal basis, particularly in their clinical groups because these are smaller sections, ie. 20 per term broken into 2 groups of 10; "They'll often give me feedback as to what they would like (p.14)

* students also do ~~terminal~~ summative evaluations but not at the end of each class; however, E1 will ask after an hour of class if the lesson is helpful or OK and will get some feedback but is not confident asking for criticism

* will ask students to comment on whether they would like to see more of something or if they'd like to change it but not to criticize it.

* older students do not like "busy" work and are found to be a bit more timid; they want some independence in terms of resonsibilities and want to know very clearly what is expected of them

* stated that she didn't feel she was a good teacher because she's not convinced that students get anything if she lectures to them; what she does do effectively is raise questions

* wants students to think "humanistically" toward those they are caring for

* is concerned with how her students are doing not just as learners but also as people and how their clients are doing

* "I think students are learners and have the right to make mistakes" (p.18); however, it is the educator's responsibility to minimize those mistakes so that nobody is at risk.

* students should not be expected to know everything but rather to have done their research to know what resources are available, where they could find out the information they need.

* believes that we learn by mistakes and therefore, if this is a belief, must allow for students to make mistakes

* believes that the learning process is "growing" and "experience"; ie. if she can get a student out to experience rather than read about it, this is preferable

* tries to get students out into the community but can't supervise that so "I miss out on it all" (p.20)

* the educator comes with a fair amount of reference material; this is what can cause some difficulty until its been synthesized down to an appropriate amount

* the student is expected to come with some preparation and commitment; "that's why we really make an effort to get the study packages to them early".

* study guides also consist of case studies to see if students can apply textbook readings to the situation; this would then be used in a conference to see what's possible

* often feels uncertain when going into the classroom; "I don't always have a lot of confidence"(p.22). Is often concerned she may not know

enough. At one time believed that a teacher had to learn it all; but doesn't always have a chance to read everything and so, "I forget a lot".

* As a teacher, "I think I'm O.K."

* E1 asks a lot of questions and tries to ensure people understand the language (nursing has its own language) – former student confirms this + Confirmed she kept her head low to avoid it - said this with positive tone

* is careful not to presume that students have had time to cover everything since many have jobs and families

* has difficulty wrapping up a lesson and summarizing; is worried that some things haven't been covered because she's not polished in the area of presentation.

* "students influence my teaching more than anything else" (p. 23); student life experiences have taught her that there is no end to learning

* believes in equality and "humaneness"; if that equality can be found, something can be learned, ie. mentally ill patients have something to offer.

* wants students to value caring and compassion

* devalues university learning as artificial

* academics "lose sight of the little people, ...like my students and my patients"(p.24)

* "all there is is to learn something" (p.25)

* also learns from patients but the right questions must be asked to get the answers

* is no longer concerned about how she appears to others; values those who are not "following just because they feel they have to"(p.26)

* values humour, and pleasure and good fun in life

* feels the paradigm shift has caused some stress because of less time to get to know the students, in the classroom particularly

* believes students are experiencing more stress because of the paradigm shift because of the amount of time that is not committed; therefore, students have agreed to take on extra hours of work in part time jobs, etc.

* because of the paradigm shift, her students will have contact for 3 days, 1 class day and 2 clinical days. For the 2 non-contact days, no adjustments have been made for availability of faculty "it's a hit and miss kind of thing"(p.27). Faculty don't seek it out nor do the students

* paradigm shift causes confusion in terms of what is expected of the students; if they can learn without teachers, why go to school?

* the Nursing Dept. decided that if hours had to be cut, they come from classroom hours so that the clinical component could stay up: "we all agreed that we needed the clinical contact hours in order to

E1 and E3 are we the same person? with a personality split - sound like fun

complete the experiences so they could learn it on their own

* "you can't just say that one kind of learning is going to work for everybody because it doesn't" (P.28)
* in order for the paradigm shift to work, time was necessary to get enough information gathered to hand them so they could work independently with the videos, audios and computers.
* support systems are necessary in order to reduce stress in the learning setting; clear, defined managing systems, or a study package that is not overwhelming and nor takes a whole weekend to study, are necessary
* in the early years, E1 was considered to be a "tough" teacher;, "I think I was more of a hotshot back then...now I really just enjoy the process...I really enjoy the students as they find the answer" (p.29)
* learned some time ago that there is no wrong answer
* To-day "I think I'm freer"; is very comfortable in her own skin
* has changed in that she has learned you never quit: you just change direction
* "one great thing about nursing is that you can be strong in one area but you don't have to know everything" (p.31)
* in the fields of medicine, sciences and psychology, one never stops investigating because so much is being discovered all the time
* believes she is more lenient than her colleagues about giving people a chance
* if SDL were applied to E1, "I'm only going to learn what I'm interested in...a way that I can apply it to myself" (p.32)
* believes there are things a person will not learn unless they have an interest or unless somebody shows them they need it for a particular reason
* for students, believes that they're not going to know what they need in psychiatric nursing for instance, and it's an area most would be glad not to do unless they are inspired to think it is important
* the problem with SDL is that nursing students have to meet a certain level of criteria that goes beyond what's down on paper; ie. Provincial or Amereican National exams if they want to practice nursing
* in clinical areas, it is feasible that students could sign on as they want to show up, but "so far 'they' don't want students there without teachers to supervise" (p.34)
* sending students out to work in the community can be perceived as self-directed "we call it

volunteer...community contact...for 10 hours...and it is totally self directed" (p.35) but the preparation for this is phenomenally difficult because of the number of agencies that have to be contacted to place 40 students, and the number of personalities,as well as insurance. All that is asked in the end is a one page summary from the student of what they have accomplished

* believes in self directed learning more than it is possible to practice it. An example of an SDL academic course might be the maternity course in which the students would be given objectives and readings that are expected of them, a list of videos; they would arrange home visits if this is necessary, do a little interviewing and assessment. Feedback is the teacher's responsibility; this can be done by a paper and pencil or computer quiz or a group discussion so they could share what each has learned..."as I get comfortable..., maybe I'll be able to incorporate some (SDL)."(p.37)

* "I'd like to also see student study groups and I don't know how to implement that"(p.37) The educator's role would not be that predominant in study groups but the students would need rooms set up so they could get together to share. Believes that probably the main reason this is not being practiced is that the educator is in a timetable-driven work schedule; these hours have to be used to capture whatever the students have learned. And then an evaluation is necessary to determine whether this is enough learning. "So you've got to be very accurate about the objectives you set up ahead of time"(p.38)

* when the faculty were on strike, students got together and worked with the student learning packages on their own. When evryone returned to class, a lot of the topics had already been covered by the students on their own. "So [student study groups] are possible, it's just whether or not the motivation's there."

* in the psych. component of the program, students work in groups to prepare a presentation for which they do all the necessary field research and other prep. The whole process and final products are described as "a totally marvellous experience". It is noted that the students must often go through "pain and anguish" to do this. This component has been developed over the past 4-5 years. Rationale behind it is to give students practice and some proficiency at presenting information, teaching, and being in front of a crowd.

* evaluations and comments on course structure are invited foramlly from the students mainly at the end of a course. However, if something new is being tried, verbal feedback is invited by E1 before students leave that particular class...ie. what did they like, anything they would like to see added. She is becoming

more "comfortable" with this.

* changes are made, and can be made based on student feedback if there are fewer teachers for a course. For example, at times, E1 has taught with 7 other teachers, in which case it is impossible to get everyone to agree. Currently, however, there are only 2 people in 2 different courses so there has been more opportunity to make changes.

* enjoyed the teacher training program that was offered through the western region; learned a great deal but feels that she does not always apply what she learned. For example, is always looking for ways of organizing

* people must be given permission to try (p.45)

* journals are a major component of the evaluation process. In a clinical situation, the whole dynamic changes once the educator is in the room and therefore, the educator is not really in a position to evaluate. Therefore students are encouraged to write as much as possible in their journals, to take part in classroom discussion and to be very much involved in their own evaluation of the situation.

* evaluation is therefore the educator's responsibility but is based on what the students provide rather than merely teacher perception

3/ OTHER SALIENT, IMPORTANT, INTERESTING ASPECTS OF THIS CONTACT

* has studied full time and part time, continued studying through a marriage break up and raised a family; was also working part time while studying, in both classroom and 4 hospital/clinical settings

* has taken a fair number of psychology courses

* an option course of which E1 has fond memories was Education through Music; this was seen as an exciting form and one that she may want to study some more

* is not currently studying anything formally; is considering taking some new courses now that the family has become independent and she has some time to herself Is however involved in a lot of informal studying for personal pleasure, ie. worm farming

* course in maternity nursing with a focus on the newborn which is one of 2 courses currently being taught by E1 is not a "core" course but more of "an academic subject" (p.10) because it's not possible for the students to see many people in the clinical setting; they see patients more on an outpatient basis. The other focus in this area is gynocological surgery

* is involved in the clinical setting doing hands-on supervision of students in postpartum maternity

* until last year, was not teaching psychiatric nursing in the classroom but rather was always involved in the clinical aspect

* feels most confident working with psychiatric clients and students in that area because "I like interviewing people ... and finding out where the breakthroughs are "(p.12)

* is not fond of medications

* because she teaches mainly specialties, most students are a year and a half into their program when she meets them; therefore, they already know how to research on their own: "They've already been sort of trained". (p.17) Some are two and half years into it so may even be more "jaded".

* the office areas at this campus are not conducive to private interviews with students because they are open concept.

* E3 does not work at her desk much for this reason

* the paradigm shift is supposed to represent new and creative ways of learning, " I don't think it's what we've done"(p.28)

* is a feminist and involved in employment equity;

would like to see an increase in blacks, natives and other cultures in nursing

* considers her own self directed learning activities different from those of students because she gets paid for it and she has a job

* believes nurses have undervalued themselves over the years; probably because they are mostly women

* notes that courses with which she is involved have little if no problem; "the courses that I'm involved with really have a lot of positive things"...so is not working from a problem stance

* uses the "bag lady" image when describing her style

* originally resisted having men admitted to the program but has found that they have been good for her because she has learned that they do have a contribution to make; has had to grow through an anger at men because of personal experiences

* believes that the "students are hurting"...many have lost jobs or come from broken marriages

Hi. Sorry I'm slow at getting back to you. I'm impressed with the accuracy of this information. Look forward to hearing from you again.

Sincerely

4/ NOTES AND NEW QUESTIONS

* the study guides that are used have been based on an approach and a philosophy of a nun: and a Nurse

i) Who was she? Sister Calliota Roy

ii) Why has she had this influence? wrote The Roy Adaptation Model Appleton. Lang 1986

I think nurses wanted a non-medical tool to assess their patients more holistically

iii) Approximately when were these study guides first being used at the college?

fairly major shift to these study guides for Sept 1988 (This was a tough question)

iv) Do other college nursing programs use the same study guides or have they been designed by College faculty specifically for College nursing students?

these guides not used by other colleges but other nursing programs have similar approaches using independent study packages or study guides, learning activities etc. we share some but not all study guides with

All the Best with your work. What's next? It was fun!

Appendix H

Research Protocol

Brock University

Research with Human Participants — Extensions 4068/3127, Room D328

FROM: V. Shuart, Chair
Standing Subcommittee on Research with Human Participants

TO: ✓ P. Cranton
Education

DATE: February 1, 1993

The Brock University Standing Subcommittee on Research with Human Participants has reviewed the research proposal:

A Study of Self-directed Learning at Ontario Colleges of Applied Arts and Technology
Valerie Grabove

The Subcommittee finds this proposal to conform to the Brock University guidelines for ethical research.

V. Shuart
per

Appendix I

Letters of Request - Survey

Brock University

St. Catharines, Ontario, Canada L2S 3A1 Telephone (416) 688-5550 Fax (416) 688-2789

Nov. 23, 1992

Dear

The attached survey is part of my M.Ed. research at Brock University, St. Catharines, regarding teaching and learning practices in community colleges. I would greatly appreciate your cooperation in completing this survey.

There are two parts to the survey. The first part will provide information regarding your background as an educator. The second part will reflect your values and practices as an educator. Please answer as honestly as possible; there are no right or wrong answers, only different approaches to education.

All full-time faculty at College have been asked to complete this survey. You will note that your survey has a code. This is necessary in order for me to contact a few people for the next phase of the research. However, your responses will be kept in the strictest confidence and anonymity is guaranteed. A copy of this study will be available upon completion in the office of the Dean of Academic Planning.

Please return the completed survey to me c/o J. D. , Box 34, by Dec. 8, 1992.

Thank you for your assistance.

Sincerely,

Valerie Grabove

Brock University

Faculty of Education
St. Catharines, Ontario Canada L2S 3A1
Telephone (416) 688-5550 Fax (416) 685-4131

Jan. 12, 1993

Dear .

The attached survey, part of my M.Ed. research at Brock University regarding teaching and learning practices in community colleges, was mailed to you last month. Possibly because of the time of year and due to some confusion in the mail room, your completed survey has not reached me.

Could you please take five or ten minutes to complete the survey? Your contribution to this study is important and I would greatly appreciate your cooperation.

All full-time faculty at College have been asked to complete this survey. You will notice that your survey has a code which will allow me to contact a few people for a subsequent phase of the research. However, your responses will be kept in the strictest confidence and anonymity is guaranteed.

There are two parts to the survey: Part One will provide information regarding your background as an educator; Part Two will reflect your values and practices as an educator. Please answer as honestly as possible. There are no right or wrong answers, only different approaches to education. A copy of this study will be available upon completion in the office of the Dean of Academic Planning.

Please return your completed survey to me via interoffice mail at College c\o J D. Box 34, South Campus. I would appreciate your response by Jan. 27, 1993.

Thank you for your assistance.

Sincerely,

Valerie Grabove

Appendix J

Letter of Request - Educator Interview

Brock University

Faculty of Education
St. Catharines, Ontario Canada L2S 3A1
Telephone (416) 688-5550 Fax (416) 685-4131

March 4, 1993

Dear

Earlier this year, you completed a survey regarding teaching and learning practices and I wish to thank you very much for your response. The survey was the first phase of my M.Ed. research at Brock University investigating educational practices in community colleges.

Of the 61% of full-time faculty at College who responded to the survey, a small sample has been drawn for the subsequent phase of this research. Your responses to the survey indicate that your participation as part of this sample would be valuable.

I am inviting you to participate in an interview to share your perspective of the teaching/learning process as it applies to self-directed learning and the college student.

I will contact you by telephone within two weeks to clarify any concerns or questions you may have. The interview will take approximately 1 to 1 1/2 hours and will be tape recorded with your permission; you can be assured that your opinions will be anonymous and all tapes and transcripts will be strictly confidential. If you would like a more comprehensive description of this study, a copy of my research proposal is available in each of the offices of the Vice-President, Academic and the Dean, Academic Planning.

If you agree to participate, I ask that you sign the attached consent form and give it to me when we meet. The interview will be arranged to suit your schedule; however, due to the distance I must travel, I will be asking that we meet on a Thursday or a Friday. I hope to have all interviews completed by April 2,1993.

I sincerely hope that you will agree to help me further my research. I look forward to meeting you.

Yours truly,

CONSENT TO PARTICIPATE IN M.ED. STUDY CONDUCTED BY V. GRABOVE

I, _____, agree to participate in the study as described in the attached letter. I understand that confidentiality and anonymity are assured. I also understand that my participation is voluntary and that I may withdraw from the study at any time.

_____	_____	_____
(signature)	(print name)	(date)

Appendix K

Letter of Request - Student Interview

Brock University

Faculty of Education
Graduate and Undergraduate Studies

St. Catharines, Ontario
Canada L2S 3A1

Telephone (416) 688-5550 Ext. 3340
Fax (416) 685-4131

March 18, 1993

Dear

I'm an M.Ed. student attending Brock University in St. Catharines. Part of my research is at College. The focus of my study is the teaching\learning process in the community college.

So far, the faculty at have answered a questionnaire and some have been interviewed about teaching. Now I am interested in students' views.

One of your professors has said that your views would be valuable for this study.

I am inviting you to participate in an interview to share your perspective of the learning process.

There will be two parts to your involvement. First, I would like to meet with you next week for approximately one hour to explain the study and to answer any questions you may have. We will also schedule a time and place for the interview at this time. Second, the interview will take place immediately following the end of this school term. It will take approximately 1 to 1 1/2 hours and will be tape recorded with your permission.

You can be assured that your opinions will be anonymous and all tapes and transcripts will be strictly confidential.

If you agree to participate, I ask that you give your telephone number to the professor who gave you this letter so that I may contact you to arrange an initial meeting. Both the meeting and the interview will be arranged to suit your schedule; however, due to the distance that I must travel, I will be asking that we meet on a Thursday or Friday.

I sincerely hope that you will agree to help me further my research. The student's perspective is a crucial element to this study.

Yours truly,

Valerie Grabove
Graduate Student

Appendix L

Table of Modes, Means, Standard Deviations and Frequency of Responses (rounded off to nearest decimal) n = 179

	QUESTION	MODE	MEAN	SD	% FREQUENCY OF RESPONSES[1] AS 4	A 3	D 2	DS 1
	STRUCTURE							
A1	Allow course structure to be influenced by students' suggestion	3	2.7	.75	11.2	58.1	23.5	7.3
A2	Try to offer choice of topics	2	2.4	.78	6.7	33.1	48.3	11.8
A3	Share the course planning process with my students	2	2.3	.73	4.5	30.9	52.8	11.8
A4	Due dates are set, students may request changes	3	3.0	.73	18.8	64.2	11.4	5.1
A5	Students set due dates for assignments within set guidelines	2	2.2	.84	6.2	31.5	42.1	20.2
A6	Students design many of their own learning activities	2	2.2	.68	1.1	27.4	58.1	12.8
A8	Want students to be in control of the learning situation	3	2.6	.71	5.2	51.7	37.2	4.7
A11	Prefer to let course structure emerge as the course progresses	2	2.3	.72	1.1	34.6	48.0	12.8
	OBJECTIVES	2	1.8	.55	1.1	4.6	69.7	24.6
B1	Course objectives are set by the students with educator's input							
B2	Course objectives set by educator	3	3.2	.60	24.7	69.7	2.8	2.8
B3	Hand out objectives and invite changes	2	2.3	.72	4.5	29.2	54.5	11.8
B4	Suggest students modify objectives to suit their needs	2	2.1	.68	2.9	22.3	61.1	13.7
	COURSE CONTENT	2	2.2	.64	2.3	25.7	61.7	10.3
C2	Content best determined in consultation with students							
C4	Will abandon plans to meet students' requests	2	2.2	.81	2.9	30.1	45.7	20.8

C5	Content prescribed by program guidelines	3	3.3	.59	34.3	60.7	3.9	1.1
D1	**LEARNER CHARACTERISTICS** Assess what students want and need	3	3.1	.62	20.0	68.6	9.1	2.3
D2	Consider personality and learning styles	3	3.2	.61	26.4	64.0	8.4	1.1
D3	Adjust courses to suit student characteristics	3	2.9	.77	17.7	56.0	21.1	4.0
D4	Try to foster independent thinking	4	3.5	.51	50.0	49.4	0.6	0
D5	Try to provide opportunities for reflection of learning	3	3.4	.53	45.2	53.1	1.7	0
E1	**EVALUATION** Want students to set evaluation criteria	2	2.2	.65	1.7	22.3	65.1	10.3
E3	Students evaluate some of their activities and negotiate a grade with educator	2	2.3	.81	4.0	33.9	44.3	17.2
E4	Students suggest/design own evaluation activities	2	2.1	.65	1.1	21.6	61.4	15.9
A7	**NON-SELF-DIRECTED APPROACH** Set direction for student learning	3	3.2	.52	24.3	71.8	2.8	.6
A9	Advise students what they should learn	3	3.2	.61	27.0	64.0	7.9	1.1
A10	Try to maintain control of learning situations	3	2.9	.71	18.6	54.1	25.6	.6
C1	Primary role is to deliver course content	3	2.6	.78	10.9	49.1	32.0	8.0
C3	Determination of course content is educator's primary role	3	3.0	.67	16.9	63.3	16.9	2.3
E2	Educator in best position to judge students' efforts	3	2.8	.74	13.1	54.9	28.0	2.3

[1]AS Agree Strongly
A Agree
D Disagree
DS Disagree Strongly

Appendix M

Inter-item Correlations of Strong Indicators of SDL

	A1	A3	A5	A6	A8	B1	C2	C4	E1	E3	E4
A1											
A3	** .4395										
A5	** .3324	** .3462									
A6	** .4174	** .3719	** .3624								
A8	* .2242	.1455	** .2988	* .2466							
B1	** .2678	* .2195	** .4148	** .2769	* .2461						
C2	** .4666	** .4804	** .4288	** .3149	* .2266	** .4825					
C4	** .4897	** .3573	** .3094	** .3478	* .2494	** .3954	** .4290				
E1	** .4237	** .4391	** .3778	** .4062	** .3191	** .4910	** .5149	** .3874			
E3	** .4530	** .4199	** .3759	** .4418	** .3313	* .2301	** .3663	** .3379	** .4674		
E4	** .3609	** .3667	** .3648	** .4130	** .3505	** .4616	** .4293	** .3655	** .5974	** .6303	

* $p < .01$

** $p < .001$